

Pawan Hans Limited

Corporate Plan

2015



पवन हंस लिमिटेड
(भारत सरकार का उपक्रम)



Pawan Hans Limited
(A Government of India Enterprise)



PAWAN HANS LIMITED
WE *fly* FOR YOU

2015

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लक्ष्य

“हेलीकॉप्टर और सी-प्लेन सेवाओं में एशिया का मार्केट लीडर बनना, फिक्सड विंग एयरक्राफ्ट परिचालानों द्वारा क्षेत्रिय संपर्कता उपलब्ध कराना तथा अन्तराष्ट्रीय मानकों के अनुसार हेलीकॉप्टर कम्पोनेंट / एसेम्बलीज की मरम्मत / ओवरहॉल संबंधी सुविधाओं की स्थापना।”



Mission

To become a market leader in Helicopters and Sea Plane services, to provide regional connectivity through Fixed Wing Aircrafts operations and setting up of repair / overhaul services, components / assemblies at par with international standards.

Preface

India's civil aviation market is among the fastest growing in the world, but helicopter use remains very limited. From the time, the first civil helicopter flown in India in November 1953 and up to year 1986 the commercial use of helicopters in India remains limited to small aviation activity involved in communication and crop spraying. The formation of the Pawan Hans Limited in 1986 provided the first boost to the civil helicopter industry in India, which now holds and operates the largest fleet in the country with a defined mandate *"To become a market leader in Helicopters and Sea Plane services, to provide regional connectivity through small fixed Wing Aircrafts operations and provide repair/ overhaul services at par with international standards."*

Today, there are approximately 277 civil registered helicopters in the country, out of which only about 92 helicopters are in commercial business. However, these numbers are woefully inadequate when compared with the world population of civil helicopters. As per the HAI statistics, out of a total world civil helicopter population of 35,000 India accounts for less than one per cent. In fact, India currently has fewer civil helicopters than even Switzerland. Brazil – a developing country like ours – the city of Sao Paulo (similar to Bombay and Delhi) itself has about 750 helicopters. Despite of these above statistics, the market and industry remains optimistic about the Indian Civil helicopter Industry.

Accordingly, Pawan Hans has developed a Corporate Plan as strategic vision document–2020 to meet the challenges in all facets of organizational growth led to business expansion in terms of fleet size; improve productivity, increase prosperity, skill development and development of Heliports under Heli-Hubs concept.

Ministry of Civil Aviation and DGCA have been working to promote general aviation and helicopter industry in particular by renewed focus on easing regulation and new civil aviation policy. The helicopter industry and general aviation has huge potential in area of tourism, law & order, disaster management, emergency medical services and intra-state/inter Island connectivity besides MRO business under Make in India initiatives of GoI to serve the nation with true spirit as being a National Helicopter Carrier.

This Corporate plan–2015 is a visionary document and will act as guided pathway to meet organization's strategic growth plans. The document consist four sections and 24 chapters.

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SECTION – A

HELICOPTER INDUSTRY

OVERVIEW

Scaling New Heights

enabling oil companies to reach New Depths



CHAPTER – I :: GLOBAL HELICOPTER INDUSTRY

1.01 Introduction

- (a) Helicopters as a mode of transportation received its first commercial certification in 1946. The wide scale deployment of helicopters in the difficult terrain during the Vietnam War proved its worth as a versatile and flexible machine and opened the floodgates for development of the global industry.
- (b) The commercial usage of helicopters commenced from 1970 onwards when helicopters were specifically re-engineered to serve the civil operations. The helicopter has seen considerable improvement in design, development and commercial use over the last 3 decades commencing essentially in USA followed by France, Germany, UK and Russia.
- (c) A helicopter is an extremely versatile machine which finds maximum utility in areas which are inaccessible or where the available alternate modes of transportation are time consuming and inefficient.
- (d) Helicopter service, unlike fixed wing service, is largely a non-scheduled operation because it caters to customized requirements rather than a routine transportation need as in the case of fixed wing aircraft.
- (e) In view of the diverse range of services offered which go much beyond satiate the basic need of transportation, the industry has witnessed the development of specialized skills in terms of machine capability and human skills for different type of activities. Hence, unlike fixed wing aircraft, the key drivers in this industry are activity specific and vary according to the area of operation.

1.02 Usage Profile

- (a) Initially, a helicopter were used by the Armed Forces and later when offshore oil exploration started helicopters found their application in the civil market. The size of the global civil market is estimated about 35000 helicopters.

(b) In the civil Market, helicopters are used for the following type of operations :

(i) **Personnel Transport** : Helicopters are used as a mode of transport in hilly terrain, inter-city travel (general) for cities which are not assessable through a fixed wing aircraft), or intra-city travels (in highly congested cities where other modes of transport are time consuming). Within the personnel transport market, segmentation can be done on the basis of types of operators and could be :

- (i.i) Charter of hire basis
- (i.ii) Companies for their internal use
- (i.iii) Tour operators as a part of their package tours

However, in the US the inter and intra city charter market is facing opposition from various environmentalist groups on the issue of noise pollution. In fact, helicopters manufacturers are working towards minimizing noise pollution as otherwise this issue could affect the operations of large number of small operations who rune scheduled and non-scheduled services.

(ii) **Industrial Support**

(ii.i) **Agriculture** : Helicopters are used for aerial pesticide spray in the agriculture sector. The criterion for selection of the crops for aerial spray is as under:-

- The area under the crop should not be scattered
- The main potential lies in cash crops which provide high value yields
- The cropping pattern should have a high density so as to make manual spraying difficult. Additionally, the height of the crop should exceed the average human height so as to eliminate possibility of manual spraying.
- The susceptibility of the crop to particular pests in the specified are should be high.

- The pest to be eliminated through aerial spray should attack the plant from the top, as otherwise the aerial spray is not effective.

(ii.ii) **Logging**: Since its introduction in the Pacific Coast in Northwest US in the early 1970s, helicopter logging has resulted in vast improvement over the traditional methods of moving logs in rough terrain. The economies were driven by the ability to harvest timber from areas otherwise inaccessible which resulted in:

- Minimizing the environmental impact
- Removing the expenses of road building and other local infrastructure

The use of helicopters has allowed operations in areas where the terrain or environment otherwise would not have permitted, such as swamps, wetlands, and even in watersheds of large suburban areas. Once the concept and economics were proven, heavy lift helicopters are being used as an essential tool in forest management in the 1990s.

(ii.iii) **Oil and Gas Sector**: Helicopter usage is mainly confined to off-shore operations in the oil and gas sector. This sector is the largest single patron of the helicopter industry and has been largely responsible for sustaining the viability of the industry.

The task performed by the helicopters in the oil Sector are :

Crew Change : Helicopters facilitate crew change between the shore base and rigs for drilling operations and between shore base and mother platform of production activity. Since the above is a transportation activity, larger machines are deployed to achieve economies of scale.

Inter Platform Task : Helicopters are utilized for maintenance of unmanned platforms. In such an operation, technicians are moved from the mother platform to the unmanned platform to

undertake the repair and maintenance job. Unlike the crew change activity, this operation is flight intensive and requires effective scheduling. Since most of the platforms are smaller in size, a light or medium helicopter is employed for such an activity.

Construction work: This could either involve platform construction, pipeline construction or repair work. Helicopters facilitate crew change between shore-base and the construction vessel. Additionally, in case of maintenance, helicopters are also used for aerial survey of oil and gas pipelines.

(ii.iv) **Utility Support and Construction:** The construction, power and telecommunication industries utilize helicopters to transport heavy equipment to otherwise unmanageable heights and inaccessible areas. Some of the specific uses are for lifting modules / cooling generators / towers / dish antenna to roof tops, setting up power pylons / transmission lines in hills / jungles, laying pipelines, building sky-lift, inspection of high tension transmission lines etc.

(iii) **Public Service / Safety**

(iii.i) **Fire Fighting:** Helicopters can be used for fire fighting in congested urban centers, which are bustling with high rise buildings. Helicopters are used to douse fire with chemical spray or just to fan the fire away from vulnerable spots.

(iii.ii) **Emergency Medical Service (EMS)** : Helicopters are employed for providing air ambulance services and evacuating casualties from inaccessible / underdeveloped / congested areas to large medical centres. Additionally, helicopters are also utilized during natural calamities like floods, earthquake etc.

(iii.iii) **Information Gathering** : Helicopters are also used for news gathering. Traffic watch, aerial surveillance and photography because of the quick and wide coverage it provides.

(iii.iv) **Law enforcement:** Law & Order through surveillance through Helicopters is another application and worldwide approx. 18% helicopters are being used for this activity.

- (iv) **Training and others** : The areas mentioned above are specialized jobs, which need specialized pilot skills. Hence imparting training in itself becomes one of the applications of helicopters. Additionally, there are other application like police patrol, coastline patrol and other Governments contracts where helicopter services are utilized globally.
- (c) In each of the above mentioned activities, the operators provide a complete package of services and have developed expertise in the above areas. Every service requires a particular kind of hardware and technical skills for e.g. agro-spraying requires helicopters to fly at low level, while usage in hilly terrain requires helicopters to fly at high altitude, logging requires heavy duty machines while production work in the oil sector requires lighter machines and skillful flying for landing on production platforms. Hence the operators have limited flexibility to utilize the helicopters across different activities.
- (d) As can be seen from above, helicopters are deployed for wide range of activities. From off-shore oil exploration to fire fighting, Disaster management there has been a gradual increase in the application of helicopters. However, usage of helicopter service is highest in the developed economies because of such a service is not a major deterrent in such countries.

1.03 Player Profile – Civil Market

- Operator's worldwide can be classified into the following categories :
 - Commercial Operators who operate helicopters for compensation
 - Non – commercial Operators - Corporate / private operators who operate helicopters for a corporation or themselves (without charging compensation for their flight activities)
 - Public Service Operators who operate helicopters for a Government Agency.
- (a) Commercial Operators constitute more than 60% of the total number of operators and operate about 90% of the total helicopter fleet in the civil market. The market is highly cluttered with 50% of the operators

owning 1-3helicopters and accounting for 10% of the helicopters deployed. However, the tendency to assume large size is evident from the fact that about 20% of operators fly approximately 75% of the helicopters.

- (b) The distribution of the revenues of Commercial Operators from the various applications is as given below :

World wide Distribution of Revenues of Commercial Operators

Table1.1

Industrial Support	
Oil & Gas	57.8%
Utility Support and Construction	3.7%
Agriculture	8.2%
Logging / Lumber	0.6%
Medical Service / Safety	5.4%
Emergency Medical Service (EMS)	7.2%
Fire Fighting	1.4%
Information Gathering	0.4%
Personnel Transport	7.5%
Training	8.8%
Other / Government Contracts	6.5%

Source: HAI Global Survey of Operating Performance 2009

As seen from above, the Oil and Gas Sector is the largest user of the Helicopter services followed by EMS.

- (c) An Analysis of the revenue profile of operators owning more than 08 helicopters (the category which flies 80% of the total helicopters) reveals that 93% of their revenue come from the following areas :

Global Operators : Key Revenue Operations

Table 1.2

Area	Percentage (%)
Oil & Gas Support	57.8%
EMS	12.6%

- (d) The analysis of the global scenario reveals that in views of the high technical skill requirements, the operators generally develop a specialization in an area of operation. The specialization so developed is then exploited fully both in the domestic and global industry and

thereby these operators assume large sizes. The fact is further corroborated by Petroleum Helicopter Inc which has been profiled below :

1.04 Hardware Profile

- (a) In view of the diverse range of activities performed by the helicopters, the hardware specifications available also vary accordingly. Helicopters can be segmented on the basis of :
- Market viz. civil and military
 - Size viz. Ultra Light (1-3 seaters), Light (4-7 seaters), Medium (8-16 seater) and large (17+ seaters).
 - Engine viz. single engine and twin engine.
- (b) The variables, which may differ across various models of helicopters, are weight, capacity, power, cruise speed and range. For different kinds of activities, different combinations of the above are required.
- (c) The 2 largest helicopters manufactures viz. Bell Helicopter and Airbus Helicopters have about seven different types of helicopters and within each category there could be 1-4 models. Although they have been improvement in the design of the helicopters over a period of time, however, the technological obsolescence has not been a big deterrent for helicopter operators.
- (d) There is no concept of useful life of a helicopter as most of the parts of helicopter are replaced after certain specified number of hours. This has resulted in a vibrant market for helicopters. However, with ageing of the machine the maintenance cost goes up exponentially and beyond a point a new helicopter becomes more viable than operating an old helicopter.
- (e) The most commonly deployed helicopters are light / Medium Single and Twin Engine Machine. Since these machines are generally employed for charter, EMS and Off-Shore Operations, they account for 80% of the total market.

1.05 Operational Parameters

The operational parameters like capacity utilization and man-machine ratio are the key yardsticks for assessing the profitability of a helicopter operator. The above parameters, as given in the HAI Global Survey of Operating Performance, are encapsulated below :

- (a) Capacity utilization is a function of the number of machines utilized and the flying hours clocked by them on an average, Globally, only about 7% of the total helicopters are idle or parked. The major reason for not operating these helicopters is excess market and seasonable market.

The average flight hour per helicopter in 1997 was about 510 hours per annum. The average flight hours increase significantly as we move from single helicopter operators to bigger operators. This shows that there is a high correlation between size of the fleet and capacity utilization.

Among the commercial operators, 24% operators clocked on an average more than 600 hours in 1997. The detailed break-up for 2009 is given below :

Annual Utilization – Hours per Helicopter

Table 1.6

	0-200 hrs	201-400 hrs	401-600 hrs	601-800 hrs	801- 1000 hrs	1001- 1200 hrs	1200 + hrs
2009							
Commercial	17.7%	35.4%	16.8%	13.1%	8.5%	5.4%	3.1%
All Operators	28.1%	33.6%	14.9%	10.2%	7.2%	3.4%	2.6%

Source : HAI Global Survey of Operator Performance

- (b) Employees per Helicopters: Globally, on an average operator employ 5-6 people per helicopter. The above consists of 2 pilots, 1 technician and 2 others. However, Commercial Operators have 1.17 pilots for every technical person and 1.28 pilots for every administrative person. Hence generally the pilots and technicians constitute the major chunk of the employees in a helicopter service company. However, the span and diversity of the services provided by various operators needs to be examined in order to make comparisons with the above figures.

Significantly, as the size of the operator increases, employee per helicopter also rises, this could be attributable to larger in-house maintenance facilities with the increase in size. However, the higher incidence of expenditure is generally offset by providing this service to the other operators and operating the maintenance division as a profit centre.

1.06 **Financial Parameters** :

- (a) The revenue of a helicopter operator is generally examined as a function of the number of helicopters, flight hours and employee since they are key drivers of value creation in the helicopter industry.
- (b) The revenue parameters for 2009 are given below :

Revenue Parameters

US Dollars	All	1 H/c	2-3 H/c	4-7 H/c	8 + H/c	U.S	Non-U.S
Rev / Helicopter	\$548.59	\$451.79	\$714.71	\$716.00	\$533.90	\$360.82	\$987.91
Re/Flight Hour	\$758.59	\$1312.71	\$2354.35	\$1652.82	\$704.71	\$505.01	\$1328.53
Rev/ Pilot	\$259.15	\$387.25	\$416.92	\$422.83	\$246.13	\$176.99	\$429.44

Source HAI Global Survey of Operating Performance

The revenue per helicopter increases with the fleet size of the operator, which is driven by the higher capacity utilization by the larger operators. Hence the productivity increases with the size of an operator.

- (c) **Cost of Operation**: Globally, maintenance and staff cost constitute the major portion of any helicopter operator's cost as they account for approximately 50% of the total costs. For a given fleet size, most of the cost are fixed viz. depreciation, insurance, staff cost, part of maintenance cost another overheads. Hence, over 70% of the costs of a helicopter are fixed costs, which results in a high operating leverage in the industry. This is further corroborated by the high correlation

between utilization and profitability in the sector. The data on helicopter operators world-wide reveals the operators who are able to utilize a helicopter for more than 750 hours per machine per annum are the more profitable ones. The two key factors for improving profitability of a helicopter operator are high capacity utilization and low maintenance costs.

Cost Break-up of Operators Worldwide

Table 1.8

Cost Heads	% of Total Cost
	2009
Variable Cost	
Fuel	18.6%
Semi Variable Cost	
Maintenance	22.0%
Salaries	23.0%
Fixed Cost	
Insurance	14.0%
Depreciation	6.0%
Interest	-
General & Administration	8.0%
Advertising	-
Other	8.1%
Total	100.0

Source : HAI Global Survey of Operating Performance

- (d) Profitability Margin : Globally Aviation is associated with low profit margins and helicopter business is no exception. This is established from the fact that only 19% of the operators earn a net profit margin above 10%. Here again, size plays a big role as larger players earn a 50% higher average revenue per helicopter than the single machine owners. The larger players develop economies of scale due to better maintenance facilities, expertise and higher utilization which accounts for their greater profitability.

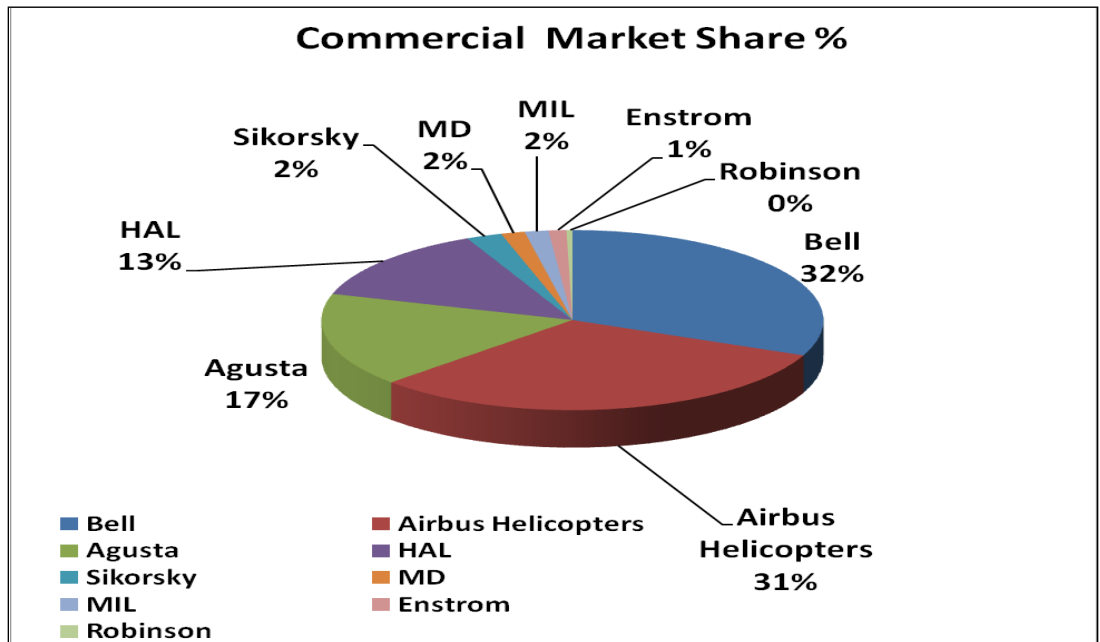
1.07 Factors Preventing Growth

Type of Operator	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Commercial	20%	17%	15%	7%	7%	9%	9%	0%	16%
Corporate	24%	9%	14%	2%	9%	9%	5%	4%	24%
Public Services	13%	2%	27%	2%	8%	18%	0%	10%	20%

Size of Operator	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1 H/c	18%	11%	21%	1%	12%	9%	10%	3%	15%
2-3 H/c	24%	14%	15%	3%	9%	9%	4%	2%	20%
4-7 H/c	17%	13%	19%	4%	4%	13%	10%	3%	17%
8 + H/c	19%	14%	13%	10%	7%	11%	3%	2%	21%

Legend for Charts	
(1) Environmental & Regulatory Issues	(6) New Helo Acquisition Cost
(2) No Growth	(7) Insurance Cost/ Availability
(3) Limited Financial Resources	(8) No Impedance to Growth
(4) No Qualified Pilots Security	(9) Limited Infrastructure, Issues & Other
(5) Cost of Spare Parts	

Global Market Share:



1.08

Conclusions

- (a) Helicopter industry globally has reached the mature stage in the product life Cycle Curve which indicates that rate of growth in the industry would be 3-5%. The Operators in the developed countries like USA would look for opportunities in the developing economies of Asia and South America.
- (b) The Key success factors in the helicopter industry vary among countries as well as areas of deployment. It is a country and activity specific industry. Helicopter is an expensive service and hence affordability plays an important role in the success of the service. Hence, the growth of the industry can be directly correlated with the economic growth of the country.
- (c) Barrier to Entry : In terms of Capital and infrastructure requirement, the barriers to entry are low. However, the lack of skilled manpower and overcapacity could act as deterrent for the new players.
- (d) Competition: The competition is highly fragmented with number of small operators operating one or two helicopters. The key success factors are development of expertise in providing a specialized package of service and investing in the development of technical and manpower skills.
- (e) Bargaining Power of Suppliers : Even though there are 2 main manufacturers, the bargaining power of the suppliers is low since the growth rates in the industry are low. Additionally, the vibrant second hand helicopters market also contributes to the low bargaining power of manufacturers.
- (f) Bargaining Power of the Customers : In spite of the higher fragmented market, the bargaining power of the customers is moderate because of the following reasons :
 - (i) Helicopters generally do not have any substitutes in the activities where they operate and are generally indispensable for the customer.
 - (ii) In highly specialized activities like off-shore operations and EMS, the skills required to perform the operations are limited to few large operators and hence the customers do not have many options.

Think of Uniting the Incredible Diversity

Think of Pawan Hans



Pawan Hans is playing noteworthy role and providing vital connectivity in challenging terrains of India's north eastern region since 1985. It provides regular passenger helicopter services in between various remote locations to cover a large area of region easily and efficiently. Thus, becoming a crucial lifeline for North-East and also proving an instrumental in promotion of tourism.



WE FOR YOU

पवन हंस लिमिटेड
Pawan Hans Limited

(A Government of India Enterprise)
www.pawanhans.co.in

2.01 History & Evolution

- (a) The commercial use of helicopters in India was started by Manakjee, Khemka and Khambatta aviation with sporadic forays into crop spraying and communications using the Bell Helicopters. The dedicated helicopter services in India were started to cater to the demands of Oil and Natural Gas Corporation (ONGC), who in the early eighties, commenced exploratory efforts in off shore areas. In 1984, Helicopter services was started by the Indian Air Force (IAF) at Juhu Airport to provide air support for off shore oil exploration, drilling and production in India.
- (b) With the rapid expansion of offshore oil exploration work, the need for exclusive services was felt as the IAF could provide only limited service. In the absence of a domestic service provider, ONGC had to employ the services of foreign helicopter operators.
- (c) Hiring helicopters from international operators resulted in substantial foreign exchange outflow. In addition, sensitive installations of the oil sector became accessible to them creating a security risk. To overcome this dependence on foreign helicopter operators, the GOI decided to create Helicopter Corporation of India and then Pawan Hans Limited. PHL has pioneered providing commercial helicopter services in India and largely represents the evolution and growth of Indian Helicopter Industry.
- (d) Before 1991, helicopters were on the restricted list of imports. Imports were allowed on a very selective basis (even for state governments). In 1992-93, helicopters were put under special import license. It was in 1995 that helicopters import was put under OGL. Now approved machines can be freely imported after obtaining requisite clearances.

2.02 Demand Scenario

In India, helicopters are primarily used for oil exploration and agro-spraying unlike the wide usage of helicopters globally. The oil Sector is the biggest user in India accounting for more than 65% of the total demand as show in the table below:

Demand Profile : Global vs Indian Industry

Table 2.1

Service	Share in Global demand (including Corporate Service)*	Share in India demand **
Corporate & General Charters	24	69
Public Service / Safety / Fire Fighting	16	7
Emergency Medical Service/Law & Order	30	1
Oil & Gas Support	36	17
Agriculture	6	0

Source : * HAI Global Survey of Operating Performance 2009

It is evident from the above table that there are several applications which are yet to be started in India and represent the talent demand potential.

2.03 Supply Scenario

- (a) In India, there are approximately 267 machines registered with Director General of Civil Aviation (DGCA). However, only 89 machines out of the total are air worth. Of the above, 47 Machines were owned by Charter operators, 17 are owned by corporate, 8 by PSUs and 17 by State Government and other agencies of their own in house use.

Helicopter Fleet in India as on 277

Non Scheduled Operators

Operator	Number of Fleet
Aerotech Aviation India	2
Deccan Aviation	5
Dhillon Aviation	2
Escorts	1
EON Aviation	2
Global Vectra Helicorp	21
Himalayan Heli Services	7
HAL Rotary Wing Academy	4

Heligo Charters	6
Hiranandani Avn	1
Indian Metals & Ferro Alloys	2
India Fly Safe Aviation	4
Pawan Hans Limited	46
Prabhatam Aviation	4
Governments	
Madhya Pradesh	3
Haryana	1
Bihar	1
Gujarat	1
J&K	4
Chhattisgarh	1
Maharashtra	2
Rajasthan	2
Tamil Nadu	2
Uttar Pradesh	4
Jharkhand	3
Ministry of Environment	
Private	
Arki Aviation	3
BG Shirke (Pune)	2
Essar Power (Mumbai)	2
Garware Wall Ropes	1
Pushpaka Aviation	3
Tata Power	2
Tata Iron & Steel	2
Para Military	
BSF	13

As seen from the above table, PHL is the largest operator in the country, most of the other operators like PSUs Corporate and Government Departments own helicopter for captive use.

(b) **Market Share :**

Manufacturer's Market Share: Indian Industry

Table 2.4

Manufacturer	Bell		Eurocopter		HAL		Others	
	Fleet	%	Fleet	%	Fleet	%	Fleet	%
Numbers	24	26	33	34	25	27	12	13

A Significant part of the fleet, approximately 60% has been supplied by Airbus and Bell Textron Helicopters. Hindustan Aeronautical Limited the domestic PSU manufacturer has supplied 27% of the fleet largely to the Defence and State Governments.

2.04 **Competition Analysis**

- (a) The Indian Commercial Helicopter Services industry is dominated by PHL with the competition largely provided by overseas operators especially in the oil and gas sector.
- (b) GVHL which started operations in 1993-94, operated through three bases viz. Delhi, Mumbai and Bhubaneswar. As of March 1996, it has a fleet size of 7 helicopters and presently they have 21 helicopters. They had adopted aggressive marketing techniques and had started making inroads into markets of the existing players especially PHL. However, we understand that Global Vectra Helicopter Limited (GVHL) has suffered financial and operational reverses in past few months which have marginalized its competitive positioning in the helicopter industry in India.
- (c) There are several other players with a fleet size of 1-2 helicopters catering to charter market or some specific areas like film shooting, agro spraying etc. IN terms of future entrants, corporate are expected to acquire helicopters mainly to meet the internal demands.
- (d) The latest entrants in the industry are the foreign operators who are parking their extra capacity in India in view of the untapped potential in the country.
- (e) However, over the past 10 years the helicopter applications have been restricted to Oil and Gas Sector and state Government charter. The growth of the industry has been slow and gradual. Some of the casual factors are elucidated hereunder :

- (i) High cost of employing helicopter service which has limited its application in the Indian Scenario.
- (ii) The lack of awareness among the public about the capabilities of the helicopter which has stifled the growth of the market.
- (iii) Another major hurdle to the growth of the industry is the time involved in obtaining the requisite clearance of new proposals.
- (iv) Regulatory issues: The helicopter industry in India is regulated by DGCA. We understand that fixed wings norms are applied to the helicopters in most of the facets of aviation regulation. Additionally, we are informed that the Air Traffic Service (ATS) procedures like visibility criteria, separation criteria, crosswind / unidirectional take-off / approach requirement, necessity of having to ground taxi long distance to take off points, holding patterns etc need to be reviewed in the specific context of the helicopter industry. Further there is need to create free flying zones up to a specified height in line with practices followed in USA, China, Australia and other countries.
- (v) Lack of Heliports : Heliports are smaller aerodromes which have small landing aprons where multiple landings and take off from and directions could be done and also have other related infrastructure like clearways, air taxiways and parking bay. Currently, helicopters have to operate from aerodromes which are meant for fixed wing aircrafts and the facilities and procedures also weigh heavily in favor of fixed wing aircrafts. This severely inhibits the exploitation of the inherent flexibility and versatility of the helicopter. Globally, heliports are established at nodal points specifically for helicopter operations.
- (vi) Lack of Market Development: There have been limited marketing efforts to convert an opportunity into business in the Indian Helicopter industry. The existing players have been fighting for the available limited market instead of expanding the market.

2.05 **Conclusions**

- (a) The India helicopter industry is at nascent stage because it is largely driven by the Oil & Gas Sector. The other avenues which have been exploited in the Global market remain untapped in the Indian Scenario.
- (b) The market for helicopter services needs to be explored and developed in a number of internationally well developed activities like EMS, Fire Fighting, Logging, Tourism, Law & Order etc.
- (c) The key success factors in the Indian Industry are the availability of skilled manpower and maintenance infrastructure facilities which in turn drive the service standards provided to the customers.
- (d) There are low entry barriers in the industry in terms of capital requirement. However, lack of ready demand for helicopters has been a major deterrent for new players. Based on market information, few corporate have conducted feasibility studies but have put their plans on hold in the near future in view of the lack of ready demand for helicopters services in the industry.
- (e) PHL is the dominant player in the Indian Industry and the other players are small and fragmented. The opportunity lies with PHL to develop the helicopter market in the India and provide a thrust to the Industry.
- (f) The new entrants have been using pricing as a tool to get a foothold in the industry. However, this strategy would not be sustainable in the long run.
- (g) The development of the infrastructure sector opens a number of avenues for the deployment of helicopters.
- (h) There is a huge potential in terms of growth and commercials in areas of Small Aircraft Operations for intra-state, inter-state connectivity in Tier-II&III cities besides MRO business and Heliports etc. PHL has a huge potential to venture into these markets.

SECTION – B

PAWAN HANS LIMITED

A PROFILE

Pawan Hans on the move to
Operational Excellence



CHAPTER – I :: BACKGROUND

1.01 Formation and Incorporation

The Helicopter Corporation of India was incorporated on October 15, 1985 under the provision of the Companies Act 1956. The Corporation was later renamed Pawan Hans Limited in May 1987 and Pawan Hans Helicopters Limited (PHHL) in June 1997 and then Pawan Hans Limited in January 2013.

1.02 Promoters and Management

PHL was set up as a joint venture with the Government of India (GOI) and ONGC contributing:

Gov: 51%
ONGC : 49%

The authorized Capital of PHL as on March 31 2015 was Rs. 250 crores, while its issued subscribed and paid up Capital was Rs. 245.62 crores.

1.03 Mission and Intent

PHL was incorporated with the following mandate as per its Memorandum & Articles of Association:

A. **Main objects to be pursued by the Company on its incorporation are:**

1. To plan, promote, develop, organize, provide and operate air support services to meet the requirements of the petroleum sector, including ONGC, which would include services by helicopter and such other services as may be determined.
2. To operate scheduled / non-scheduled services by Helicopter and such other means as may be determined by the GOI in inaccessible areas and difficult terrain and to provide intra-city transportation for the carriages of passengers, mail and freight and for any other purpose.

3. To operate Tourist Charters by Helicopters and to undertake any other operations that may be directed / requisitioned by the GOI.
4. To promote, operate and undertake setting up of Training Institute for training of Aircraft Maintenance Engineers, Pilots, Flight Engineers, Dispatcher, Technicians and other categories aimed at skill development for obtaining a licence in their respective areas of specialization and institute for safety Audit & Excellence individually or under joint venture and for the said purpose, acquire proprietary rights, assets and liabilities and undertake all necessary work of training institute and safety Audit & Excellence Institute.
5. To purchase, lease, provide, repair, overhaul, hold, dispose-off and operate fixed Wing Aircrafts, Sea Planes and any other type of aircraft individually or under joint venture and to plan promote, develop, organize and operate scheduled / non-scheduled services by the same.
6. To plan, promote, invest, develop, organize, purchase / lease land, provide, construct, hold, dispose-off, participate / create joint venture and operate heliports / helipads and other support services directly or on Public Private Partnership basis or with any Central / State Government agency / Department and provide constancy to other for planning , design and implementation of any Heliport or Helipad.

B. Objects incidental and ancillary to the attainment of the main objects:

1. To secure that the Helicopter and other air support services are developed to the best advantage for the attainment of the main objects.
2. To repair, overhaul, construct, assemble or recondition Helicopter, other air, support equipment, vehicles or other machines and parts, accessories and instruments thereof, whether the aircraft, vehicles or other machines are owned by the Company or by other person.

3. To provide for instruction and training in matters connected with Helicopter of persons employed, or desirous of being employed either by the Company or by any other person.
4. To acquire, hold or dispose of any property whether movable or immovable.
5. To enter into and perform all such contracts as are calculated to further the efficient performance of its duties and the exercise of its powers.
6. To enter into agreement with any person(s) engaged in air transportation with a view to enabling such person(s) to provide air transport services on behalf of or in association with the Company.
7. To determine an levy fares and freight rates and other charges for or in respect of the carriage of passengers and goods on air transport services operated by it.
8. To take such steps as are calculated to extend the air transport services provided by the Company in the country including improvement of the types of Helicopter used in air transport services.
9. To take such steps as are calculated to promote the interests of the Company or to improve the services, and which are incidental to the main objects of the Company, such as, the provision of catering, accommodation, surface transportation etc.
10. To form, incorporate, or promote any joint stock company or companies for carrying into effect any of the objects of this Company and to take or otherwise acquire and hold shares in any such company and generally in any Company the business of which is capable of being conducted so as directly or indirectly expenses incurred in connection with any such promotion or incorporation.
11. To promote and undertake the formation of any institution or company for the purpose of acquiring all or any of the property and liabilities of this Company, or for any other purposes which may seen directly or indirectly calculated to benefit the Company or from any subsidiary company or companies.

12. To arrange, secure and make available to its subsidiaries and other concerned organizations such facilities, resources, inputs and services as may be required.
13. To borrow for the purposes of the Company, with the previous consent of the President, foreign currency from any bank or financial institution in India or in any foreign country.
14. Subject to Sections 58A, 292 and 293 of the Act and the regulations made thereunder and the directions issued by Reserve Bank of India, to borrow or raise money or to receive money or deposit or loan at interest or otherwise in such manner as the Company may think fit, and, in particular, by the issue of debentures or debenture stock, perpetual or otherwise and convertible into shares of this or any other Company and to secure the repayment of any such money borrowed, raised or received or owing by mortgage, pledge charge or lien upon all or any other property, assets or revenue of the Company (both present and future) including its uncalled capital and to give the lenders or creditors the power of sale and other powers as may seem expedient and to purchase, redeem or pay off any such securities and also by a similar mortgage, charge or lien to secure and guarantee the performance by the Company or any other person, firm or Company, as the case may be.
15. To enter into any contract or arrangement for more efficient conduct of the business of the Company or any part thereof and to sublet any contracts from time to time.
16. To create any Depreciation Fund, Reserve Fund, Sinking Fund, Insurance Fund, Development Fund, or any other special fund, whether for depreciation or for repairing, improving, extending or maintaining any of the property of the Company or for any other purposes conducive to the interests of the Company.
17. To invest and deal with the moneys of the Company, not immediately required in any of the securities, shares investments, properties, movable and immovable and in such manner as may, from time to time, be determined and to sell, transfer or deal with the same.

18. To guarantee the payment of money, unsecured or secured, to guarantee or to become sureties for the performance of any contracts of obligations.
19. To make, draw, accept, endorse, execute and issue cheques, promissory notes, bills of lading, debentures and other negotiable or transferable instruments.
20. To enter into any arrangements with the Government of India or any Local or State Government in India or with any other Governmental authorities, local or otherwise, or with other person(s) that may seem conducive to the Company's objects or any of them and to obtain from them any rights, powers and privileges, licences, grants and concessions which the Company may think desirable to obtain or to carry out, exercise and comply with any such arrangements, rights, privileges and concessions.
21. To enter into a partnership or into any arrangement for sharing or pooling profits, amalgamation, union of interests, cooperation, joint venture or reciprocal concession or otherwise or amalgamate with any person(s) or Company carrying on or engaged in or about to carry on or engage in any business or transactions which this Company is authorized to carry on.
22. To receive grants, loans, advances, or other moneys on deposit or otherwise from a State or Central Government, Banks, Companies, Trusts or individuals with or without allowances of interest thereon.
23. To promote and undertake the formation of any institution or company for the purpose of acquiring all/or any of the property, rights and liabilities of this Company or for any other purpose which may seem directly or indirectly calculated to benefit this Company or any of its subsidiary company or companies.
24. To pay all costs, charges and expenses incurred or sustained in or about the promotion and establishment of the Company, or which the Company shall consider to be in the nature or preliminary expenses, including therein the costs of advertisement commission or underwriting, brokerage, printing and stationery.

25. To provide for the welfare of the employees or ex-employees of the Company and the wives, widows and families or the dependents or connections of such persons, by building or contributing to the building of houses, dwellings or chawls, or by grants of money, pensions and allowances, bonus, or other payments or by creating and from time to time subscribing or contributing to a provident fund and other associations, institutions, funds, or trusts and by providing or subscribing or contributing towards places of instruction and recreation, hospitals and dispensaries, medical and other assistance as the Company may think fit and to subscribe or otherwise to assist or to guarantee money to charitable, benevolent, religious, scientific, national, public or other institutions or objects or purposes.
26. To train and pay for the training in India or abroad of any of the Company's employees or candidate or to recruit and employ foreign experts in the interest or furtherance of the Company's objects.
27. To acquire and undertake the whole or any part of the business, property, and/or liabilities of any persons or Company carrying . on or proposing to carry on any business which the Company is authorized to carry on or possessed of property suitable for the purpose of the Company.
28. To sell, lease, mortgage or otherwise dispose off the property, assets or undertaking of the Company or any part thereof for such consideration as the Company may think fit.
29. To transfer, if the Company thinks fit, without consideration any property, assets or undertaking of the Company or any part thereof to any Company the share capital of which has been entirely subscribed to by the Central Government.
30. To employ and pay experts, Indian and foreign consultants etc. in connection with the business of the Company.
31. To remunerate any person, firm, or company for services rendered or to be rendered in obtaining subscriptions for or placing or assisting to place or to obtain subscriptions. for or for guaranteeing the subscription of or the placing of bonds, debentures, obligations or securities of the Company or any stock, shares., bonds, debentures held or owned by the Company or in which the Company may have an interest or in or about the formation of any other Company in which the Company may have an interest.

32. To take up all or any one or more of the above objects simultaneously or one after the other or to keep any one or more of the objects in abeyance for any period of time if any when necessary.
33. To do all such other things that the Company may consider incidental to, or may think conducive to the attainment of the above objects or any of them, or as may be cast **upon** the Company by the Central Government.

(C) Other Objects:

1. To operate any air transport service or flight by Helicopter for a commercial or other purpose, and to carry out all forms of aerial flights in different cities as may become necessary.
- 2 To provide joy rides in air with a view to promote air-mindedness in the country.
- 3 To import, export, buy or sell, let or hire or hire-purchase or lease Helicopters, other air support equipment, component parts, tools, equipment and to deal in aerial conveyance of all kinds and all kinds of machinery and other apparatus used or employed in connection therewith.
- 4 To appoint agents or to perform any functions as agent or contractor in relation to an air transport service operated by any other person.
- 5 To carry on business as tourists agents and contractors and to facilitate traveling and to provide for tourist and travelers and promote the provision of convenience of all kinds in the way of foreign tickets, circular tickets, sleeping ccess or berths reserved plans, safe deposit, enquiry bureaus, baggage transport etc.

CHAPTER – II :: MANAGEMENT & ORGANISATION STRUCTURE

2.01 Board of Directors and Management Team

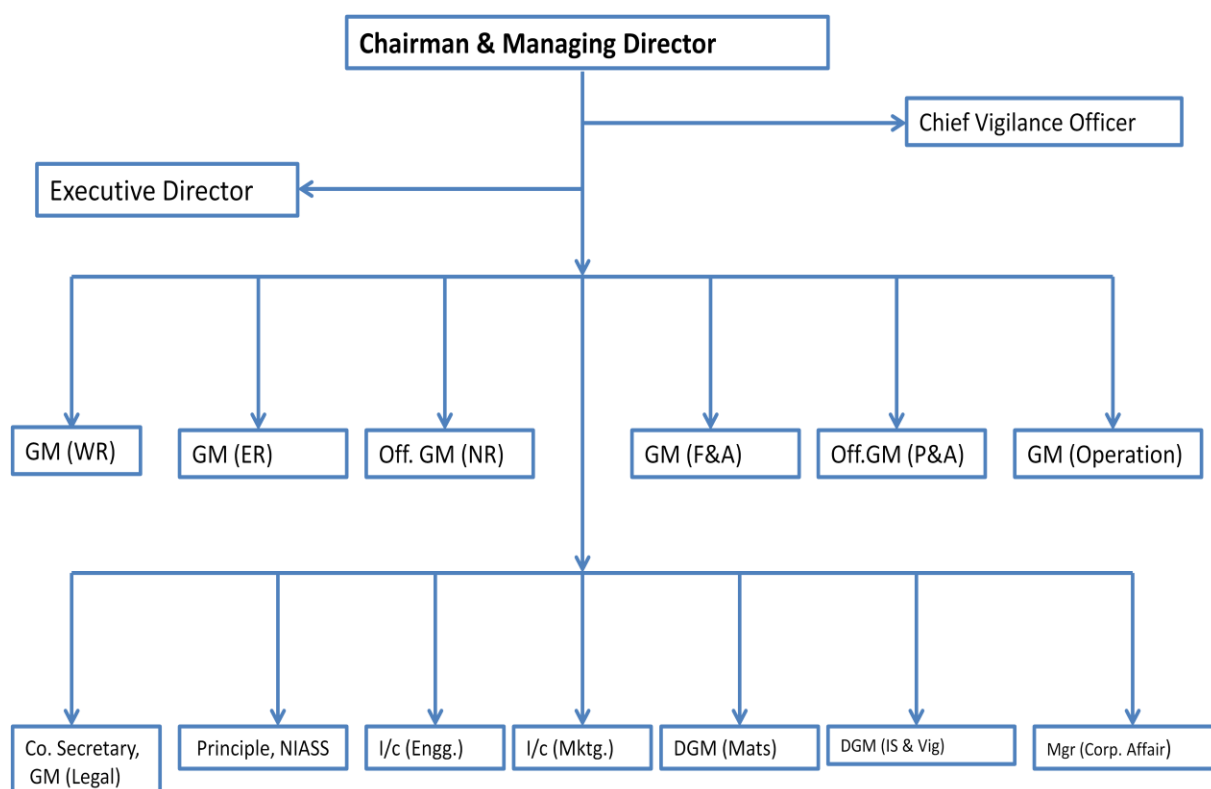
- (a) PHL is a professionally managed Company governed by a Board of Directors with representations from the Ministry of Civil Aviation, Ministry of Defence and ONGC. The Chairman and Managing Director of the Company is appointed by the GOI.
- (b) The majority of the key personnel of PHL have a services background as they were initially deputed from the three different services viz. the Air Force, Army and Navy. The Officers were later absorbed into PHL and hold key portfolios in the organization.
- (c) The present composition of the Board and a profile of the Management team is provided as Annexure-I

2.02 Locations

- (a) PHL Headquarters are location at NOIDA with regional Offices at Mumbai, Guwahati and New Delhi. The various functional departments in PHL are operations, Marketing, HR, AME, Engg, Finance and Accounts, Materials, Vigilance, Administration, Secretarial and Legal, IT, Safety, Training & Skill Development and Corporate Affair. All functional heads are based at the Headquarters. The function as are replicated at the regional office with the functional heads at the region having dual reporting relationship, to the functional head at Headquarters and the regional head at the region.
- (b) The functions and operations of the regional office vary depending on the helicopters being operated out of the region and their respective customers. Accordingly, while the majority of the fleet is based at Mumbai for ONGC and other off-shore operations, the helicopters being operated for State Government and Charter / Tourisms are based at New Delhi and Guwahati.

2.03 Organization Chart :

PHL has evolved its own systems of control covering major functional areas like Operations, Engineering, Finance, HR etc which are overseen by Executives Directors and General Managers. The existing organizations chart of the Company is as under :-



2.04 Employee Profile : The Company has a highly skilled manpower strength of 902 as under :

PHL Employee Profile

Particulars	Corporate Office		Northern Region		Western Region		Eastern Region		Total			Employees	
	Regular	Contractual	Regular	Contractual	Regular	Contractual	Regular	Contractual	Regular	Contractual	Total	Total Fleet	Deployed Fleet
Executives	22	2	6	1	8	1	4	--	40	04	44		
Pilots	1	--	23	60	23	36	--	--	47	96	143		
AMEs	6	--	24	8	50	5	3	--	83	13	96		

Technicians	--	--	16	46	58	70	1	11	115	127	242		
Support Staff	37	10	50	35	118	82	4	31	209	158	367		
Engineers Trainee	--	--	--	--	--	--	--	--	--	--	--		
Flight Engineers, Despatcher	--	--	02	4	--	4	--	--	02	08	10		
Total	66	12	121	154	257	198	12	42	496	406	902		

The PHL employees are represented by four unions / bodies are as under :

- Pawan Hans Pilots Guild (PHPG)
- All India Pawan Hans Helicopters Engineers Guild (AIPHHEG)
- All India Civil Aviation Employees Union (AICAEU) which includes all non-technical employees of PHL.
- Civil Aviation Technical Employees Union (CATEU) which includes technical employees of PHL.
- Pawan Hans Officers Welfare Association (PHOWA)

All the Unions / Guilds / Associations play a crucial role in the functioning and policies of PHL. They negotiate with the management on a collective basis with all categories being represented in-block by the elected representatives.

Officers:

The officers from the Management team of PHL are responsible for smooth and efficient functioning of the Company and effective coordination between various divisions. The officers constitute the managerial class of employees and are professionally qualified in their respective fields such as Finance, Accounting, HR, PM&IR, IT etc.

Pilots :

The Company has a good strength of highly skilled and experienced Pilots (Including Managerial Pilots) for various helicopters is as under :

Pilots Break-up

Table2.6

Dauphins N&N3	Bell 206 L4	Bell 407	MI-172	Eccurial B-3	O&M Contract
97	03	12	12	06	12

The total pilots strength of 150 Pilots approx. who are employees of the company on regular & contract. A majority of these pilots have been absorbed from Air Force and other Defence Services. These Pilots have a varied experience both for off-shore / onshore operations of the helicopters operated by the Company. The average age of the pilots is 46 years and they have logged over two lakhs flying hours collectively since inception. This is one of the highest flying hours recorded by any of the operator's word wide.

Aircraft Maintenance Engineers (AMEs)

The Engineers perform the specialized function of inspecting and overseeing the maintenance of aircraft. They are responsible for the safety of the aircraft and unless they clear the aircraft for operations, the helicopters cannot be flown.

As required by the DGCA, all Engineers at PHL have the requisite license and skills to service the helicopters. The Engineers are qualified to work on various helicopters as under:

AMEs Break-up

Table2.7

Dauphins N&N3	Bell 206 L4 & Bell 407	MI-172	Eccuirial B-3	O&M Contract
61	10	12	5	10

Technical Personnel

The Technical Personnel work on the helicopter under the supervision of the Engineers. All have the basic technical degrees and educational qualifications to work on the machines. They are critical from the viewpoint of maintaining the airworthiness of the helicopter and their productivity directly affects the availability of the helicopter for flying operations. The technical personnel are in the grade of workers and are at par with the other workers for their emoluments and remuneration.

Support Staff

Besides the aforesaid, the other employees of PHL constitute the support staff. They include the administrative staff, secretarial staff, drivers, peons, the non-

technical people working on the aircraft etc. This staff aids and assists the line functions in the smooth and efficient completion of other tasks.

2.05 Industrial Relations (IR)

PHL faces its biggest challenge on the IR front. The various issues related to IR are as under:

- (a) The key issue of the employee groups is pay parity with the industry. The highly technical and specialized nature of jobs has provided these groups with an effective bargaining edge. This is especially true in case of those jobs which are “licensed”.
- (b) Flying helicopter especially for the production sorties in the Oil & Gas Sector is a difficult and risky proposition due to physical fatigue and hostile environment. The above sorties involve higher number of landings and take offs as compared to fixed wings aircrafts. In view of the high level of skilled technical expertise required for flying helicopters in the oil & Gas Sector the pilots demand compensation comparable to fixed wing pilots.

With inadequate demand from other sectors preventing optimal utilization of the helicopters, PHL now faces a serious threat of adequately deploying its fleet to keep up its operations

2.06 Risk Management

Enterprises risk management helps management in managing the risk and avoiding damage to the entity’s reputation and associated consequences. Considering the significance of risk management in the scheme corporate management strategies, its oversight should be one of the main responsibilities of the Board / Management.

Safety

A Way of Doing Business



Safety is 'Top Priority' at Pawan Hans. We continually strive to reach new levels of performance to ensure the safety of our passengers and reliability of our services. Our safety measures conform to CAR 145 and other global aviation norms including safety management system.

Highly qualified engineers & trained technical staff helps to maintain the large fleet of helicopters. Pawan Hans have own modern workshops located at Mumbai and Delhi for repair, overhaul, bench check etc.

Safety Management Cycle



पवन हंस लिमिटेड
Pawan Hans Limited

(A Government of India Enterprise)
www.pawanhans.co.in

CHAPTER – III :: OPERATIONS

3.01 **Commencement of Operation** :

- (a) PHL commenced its operations with two Westland on October 6, 1986 within a year of its inception of the company began replacing the foreign helicopter operators and by September 1987, PHL was able to accomplish the crucial task of meeting the entire requirement of ONGC, thereby saving outflow of foreign exchange.
- (b) In the initial stage the Company accorded highest priority to meet the demand of the Oil Sector. However, in order to fulfill other objectives of the Company, namely providing helicopters in inaccessible and difficult areas, the helicopters of the company were leased to various State Governments and Union Territories which required them in view of their geographical terrain.
- (c) The Helicopters were operated in the mountainous regions of J&K and ferried passengers from one island to the other in the scattered group of islands of Andaman Nicobar and Lakshdweep. Services were also provided to the North-Eastern States of Sikkim, Meghalaya, Nagaland and Mizoram, Helicopter in these areas cater to the movement of people in difficult hilly terrain. In order to help people visit the holy shrine of Sree Amarnathji and Kedarnathji, a regular seasonal helicopter services started. PHL is also playing its vital role of providing helicopter services to PSUs like ONGC, GAIL, GSPC and NTPC etc.

3.02 **Helicopter Fleet** :

- (a) PHL initially acquired 21 Westland W-30 (Westland) helicopters along with related spares engines, spares and grounded support equipment etc from M/s Westland Helicopter Limited of UK. Further 27 Dauphin SA 365 N (Dauphins) Helicopters including six in VIP configuration which were later transferred to the State Government were purchased from M/s Aerospatiale of France. All these helicopters were inducted into the fleet during the period September 1986 to February 1988.

(b) With growth, the Company further acquired 15 helicopters between 2010-12. The company at present owns a mix fleet of 46 helicopters besides operating and maintaining 07 ALH (Dhruv) helicopters for BSF.

(i) Own Fleet		
Dauphin SA 365 N	-	18
Dauphin Sa 365 N3	-	17
Bell 206 L4 & 407	-	06
Mi-172	-	03
AS 350 B3	-	02

(ii) O&M Contract		
ALH - Dhruv	-	07

(c) The board specifications of the company's operational fleet are provided in Annexure-II

3.03 **Dauphin Helicopters**

(a) The Dauphin Helicopter has been the mainstay of PHL and during the last 5 years of operations, Dauphins have flown a total 1.25 lakhs hrs. The Dauphin SA 365 N & N3 Helicopters is equipped with the state of the art equipment and is capable of operating under day and night VFR and IFR complied.

(b) The induction of these helicopters commenced in the year 1987-87 and gradually by February 1988, all helicopters were received by the Company and deployed in Support of various customers in Oil and Non-oil Sectors. .

3.04 **Fleet Utilization**

(a) It is significant that after the initial stabilization period i.e. 1988, the deployment of fleet have continuously increased. In percentage terms the deployment has increased from 65% tin 1988-90 to 73% in 1990-92, 78% in 1992-95 and 80% in 1995-96. The company increased the number of flying hours from approximately 1,500 hrs in the formative year of 1986-87, to a record flying hour of over 30,000 in 2014-15.

(b) The deployment / utilization of Dauphin fleet since 2010-11 is as under:

Particulars	2010-11	2011-12	2012-13	2013-14	2014-15
H/C months deployed	262	283	283	293	322
Average monthly deployment	22	24	24	24	27
Flying hours	24573	24650	24925	25257	26024
Average monthly utilization.	2048	2054	2077	2105	2169

(c) As can be seen from the table, the total flying hours of PHL increased upto 26,024 hours in FY 2014-15. The average flying hours per helicopter (entire fleet) has around 770 hours since FY 2010-11.

Trusted Fleet of 53 Helicopters



35 Dauphin N & N3



8 Bell 206L4 / Bell 407 & B-3



7 Dhruv (ALH) O&M



3 Mi-172

Flying High and Safe

with State-of-the-art Maintenance Workshops



Pawan Hans Ltd. is CAR 145 approved organisation with qualified & experienced engineers and technical staff for the repair / overhaul / maintenance of different types of helicopters.

We have in-house state-of-the-art workshops at

Mumbai and Delhi that includes:

- Main Rotor Blade Shop
- Composite Repair Shop
- Engine Shop
- Safety Shop
- Battery Shop
- Radio Shop
- Soap Shop
- Instrument Shop
- Electrical Shop.

The company is bracing ahead for setting up world class MRO in India.



पवन हंस लिमिटेड
Pawan Hans Limited

(A Government of India Enterprise)
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3.05 Maintenance

- (a) PHL has invested heavily in developing adequate infrastructure for maintenance. The company has over the years been able to develop a competent and skilled maintenance infrastructure, which has the potential for further commercial exploitation as an independent maintenance facility providing services to other operators and airlines.
- (b) Helicopters on an average require 36/48 days for scheduled maintenance in a year (3-4 days per month) which includes regular major maintenance.
- (c) PHL can perform most of the maintenance of its helicopters in-house. The Company has acquired italy expertise over the years for carrying out major T inspection (500 hours) and G inspection (5000 hours) including structural repairs of the Dauphin fleet. Its technical personnel have successfully carried G Inspection in India, without any external assistance for 20 helicopters during the last three years. Facilities exist at PHL to undertake testing and partial repairs of about 60% of the components / rotables. The remaining items are sent to the manufacturers / vendors abroad for repairs / overhaul. The company has as a result, made substantial saving in terms of directed cost as well as time due to early availability of the helicopters.
- (d) The company also undertakes maintenance service for 5 helicopters owned by the other parties. PHL is setting up Custom Support Facilities (CSF) for undertaking major inspection on Bell Helicopters.

Think of Business

Think of Pawan Hans



Pawan Hans has a mix fleet of helicopters with seating capacity ranging from 6 to 26 passengers catering various needs of business world. All Helicopters are equipped with modern & advance technologies.

The company has highly experienced pilots, engineers, technicians and executives to ensure safe and reliable services and has implemented high safety standards in tune with the global safety norms.

To book a charter,
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CHAPTER – IV :: BUSINESS

4.01 Customer Profile and Requirements

(a) **Oil & Natural Gas Corporation Limited (ONGC) :**

- (i) PHL was set up to cater to the requirement of ONGC, whose operations are concentrated at various off-shore locations at Mumbai High. PHL provides valuable helicopters support services to ONGC at Mumbai as also at other locations in the country for transportation of men and material like Porbandur and Rajahmundry etc.
- (ii) ONGC still remains the key customer of PHL and its deployment for ONGC over the past 5 years is as under:

ONGC's Share of PHL Business

Table 4.1

Year	Total Flying Hours	ONGC's Share
FY 2010-11	32175	15561
FY 2011-12	29892	16224
FY 2012-13	30310	13961
FY 2013-14	30625	12494
FY 2014-15	29617	12512

(b) **Other Customers**

- (i) **Oil Sector:** PHL's customers in the Oil sector includes Hardy Oil energy/GSPC,BG for off shore exploration activity and Oil India & GAIL for their pipeline surveillance.
- (iii) **Non-Oil Sector :** Other customers for off-shore operations include the Lakshadweep, A&N Administration, which uses the Dauphin Helicopter for inter-island transportation of People and promotion of tourism. Other customers, including various state governments, utilize PHL helicopter for VIP / Passenger transportation. The company has acquired Dauphin N3, Mi-172 and AS 350 B3 helicopters during 2010-11 which are being used by ONGC ,GAIL and North Eastern States. PHL also deploys its aircraft for charter services.

(c) **Operational and Maintenance Contracts**

PHL operates and maintenance 7 helicopters belonging to BSF (MHA) and HAL.

4.02 Present Fleet Deployment

The fleet deployment as on April 2015 31 helicopters reflects the customer profile as under :

Customer Profile of PHL

Table 4.2

SI.No	CUSTOMER	BASE	H/C TYPE	NOS.
OPERATIONS UNDER WESTERN REGION				
A	OIL SECTOR (OFF SHORE)			
i)	ONGC	Mumbai (Production Task)	Dauphin N3	7
		Mumbai (Crew change)	Dauphin N3	1
		Rajamundry	Dauphin N3	2
ii)	GSPC	Rajamundry	Dauphin N3	1
B.	NON OIL SECTOR			
i)	Lakshadweep	Kavarati	Dauphin N	2
ii)	Maharashtra	Ghadchiroli	Dauphin N	1
OPERATIONS UNDER NORTHERN REGION				
i)	Andaman & Nicobar	Port Blair	Dauphin N	4
ii)	GAIL	Baroda	AS 350B3/Bell 407	1 (AS 350 B3 upto 9/4/2015 replaced with Bell 407 on 10/4/2015)
iii)	NTPC	Delhi	Dauphin N3	1

iv)	Govt. of Odisha	Bhubaneswar	Dauphin N	1
v)	Himachal	Shimla	Mi-172	1
vi)	Kedarnath	Phata	AS 350 B3	1 (services commenced w.e.f. 30/4/2015)
OPERATIONS UNDER EASTERN REGION				
i)	Sikkim	Gangtok	Bell 407	1
ii)	Tripura	Agartala	Dauphin	1
iii)	MHA	Guwahati	Dauphin N	1
iv)	Meghalaya	Guwahati	Dauphin N3	1
v)	Mizoram	Aizwal	Dauphin N	1
vi)	Arunachal Pradesh	Itanagar	Mi-172	1
		Naharlagun	Dauphin N3	1
vii)	West Bengal	Kolkata	Dauphin N	1
viii)	Charter	Guwahati	Bell 206 L4	1 –Standy at ER for charter etc.
O&M CONTRACT (UNDER NR)				
i)	MHA (BSF)	Raipur/ Bangalore/	Dhruv	6
		Agartala/ Ranchi		
ii)	HAL	Koraput	Dhruv	1

4.03 **Service Pricing :**

- (a) Traditionally, PHL has priced its service on a cost plus basis with a margin. Accordingly, the customer pays a fixed minimum charge for the hire of the helicopter on a monthly basis and a variable charge based on the number of hours flown by the helicopter in the particular month.
- (b) PHL draws up a costing schedule based on which it quotes prices to its customers. For ONGC, PHL has typically charged a profit margin of 10% over fixed charge and variable charges. Based on the above costing, PHL has also been quoting similar charges to its other customers.
- (c) However, with the entry of other operators and greater competition, PHL is modifying its pricing structure to remain competitive in the market.

4.04 **Changing Scenario :**

- (a) Since inception, PHL has been largely catering to ONGC's requirements even for heavy helicopters through contracting from private operators. However, in FY 1998 there was a change in ONGC's chartering policy due to the disruptions in service by PHL. ONGC invited global tenders for deployment for heavy duty helicopters instead of routing it through PHL who had purchased the machines for meeting ONGC's requirement.
- (b) This emerging scenario has started adversely affecting PHL's business and it has been losing market share. PHL is accordingly, exploring, pursuing and developing other market segments like tourism and charter services to utilize its aircraft. Within these segments the company has identified specific areas with adequate potential to deploy its fleet. The areas under active consideration of the management include promotion of Heli-pilgrimage tourism, Antarctica, Helisking in Himachal Pradesh and diversification in Seaplane, Small Fixed Wing operations and development of Infrastructure such as Heliports/Helipads.

CHAPTER – V :: FINANCIAL PERFORMANCE

The financial performance of PHL over the past five years is indicated in the table below:

Past Financial of PHL

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Operating Income	413.03	413.54	456.43	516.26	527.38
Non-Operating Income	17.44	24.61	25.62	26.79	13.99
Total Income	430.47	438.15	482.05	543.05	541.37
Total Expenses	330.19	362.29	351.81	376.84	392.97
EBDIT	82.84	51.25	104.62	139.42	134.41
Profit After Tax	18.50	(10.35)	11.70	38.57	43.40
Equity Capital	245.62	245.62	245.62	245.62	245.62
Tangible Net worth	485.38	475.57	484.53	513.84	646.83
Gross Margin (%)	20%	12%	23%	27%	25%
Net Margin (%)	4%	-3%	3%	7%	8%
RONW (%)	4%	-2%	2%	8%	8%
Earning per share (Rs)	753	-421	476	1570	1767
Dividend (%) 20% of PAT	-	-	3.24	7.71	

5.01 Income

PHL derives its income from three sources, viz. Hire service, Maintenance income and interest income. A snapshot of the income profile over the past five years is as under:

Source of Income : Growth & Break-up

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Hire Service	386.46	387.78	431.48	489.65	500.73
Maintenance / Other Income	26.57	25.75	24.95	26.61	26.65
Interest / Other Income	17.44	24.61	25.62	26.79	13.99
Total Income	430.47	438.14	482.05	543.05	541.37
Growth in Hire Service	-	0.3%	11%	13%	2.3%
Growth in interest / Other Income	-	41%	4%	5%	-48%
Growth in Total Income	-	2%	10%	13%	-0.3%

- (a) **Income from Operations of own Fleet** : This income constitutes over 95% of the operational income (including income from operation and maintenance contracts) of PHL.

PHL's operating revenue has steadily increased since its inception (the company has had a compounded annual growth rate of 6%) over the past 5 years).

The reasons for the decline in the income are due to the aging fleet of PHL, mainly the Dauphin and Bell 206 L4 helicopters which has caused higher downtime and sub-optimal deployment of the aircraft. Further, PHL share in ONGC for helicopters service has been substantial declined in the utilization of the aircraft. PHL has been unable to find alternate areas and sectors with adequate demand and paying capacity for the deployment of its surplus helicopters because of vantage criteria imposed by various customers.

- (b) **Income from Maintenance and Operations** : PHL gets further income from operations and maintenance contracts that it has with other helicopter owners PHL maintains and services helicopters for other operators besides contracts with customers for operating the helicopter itself.

This income contributes approx 5% of the operational income.

- (c) **Other Income** : PHL has built up a portfolio of investment, loans and advances and cash and bank deposits from the cash surplus generated over the years. This portfolio has generated a steady stream of income by way of interest and dividends.

The Loans and Advances include Deposits with Public Financial Institutions and inter Corporate Deposit with PSUs. The investments are in Portfolio Management Schemes and in PSU Bonds. Cash and Bank balance / Deposits include fixed Deposits of Nationalised Banks, Deposits Under Certificate of Deposit Scheme of Banks and Other Deposits (in Current account and Cash balance).

The average yield on the total portfolio has been as under over the past seven years in line with the market rate of interest on deposits:

Particulars	Average Yielded Portfolio
FY 2010-11	6.84%
FY 2011-12	9.01%
FY 2012-13	9.63%
FY 2013-14	10.35%
FY 2014-15	10.40%

This income constitutes a significant 30% till 2001 and further, decrease to 12% to 2007 and presently 2% of the total income of the PHL. It contributes directly to the bottom line of the company and has been the major source of revenue for the company till 2006-07.

Over the years, the other income component of PHL has increased steadily, while the operational income of the company has reduced as a percent of total income.

5.02 Cost

The various costs of PHL over the past five years along with their proportion :

Cost Profile of PHL

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Operational Expenditure	44.43	40.97	40.82	64.42	50.54
Maintenance Expenditure	101.61	108.57	90.67	104.37	119.88
Employee Cost	121.47	135.93	149.06	148.99	152.56
Insurance Cost	9.30	18.1	23.63	18.61	11.94
Other Expenses	53.38	58.73	47.64	40.45	58.05
Depreciation	46.53	60.3	73.79	79.71	62.9
Intt. Cost	6.17	14.46	28.51	31.81	17.49
Total Expenses	382.89	437.06	454.12	488.36	473.36
Operational Exp./Total Cost	12%	9%	9%	13%	11%
Maintenance / Total Cost	27%	25%	20%	21%	25%
Employee / Total Cost	32%	31%	33%	31%	32%
Insurance / Total Cost	2%	4%	5%	4%	3%
Depreciation / Total Cost	12%	14%	16%	16%	13%

(a) **Helicopter Operational Expenditure** : This expenditure constitutes the direct expenses related to the flying of the helicopter and includes fuel and navigation charges, liquidated damages, charges for leased helicopters and other operational expenditure. This cost has upto FY 2014-15 formed approximately 34% of the total expenses. However, in FY 2010-11 the direct costs formed only 38% of the expenses.

(b) **Helicopter Maintenance Expenditure** :

(i) This expenditure forms one of the most critical components of the company and relates to the costs of maintenance of aircraft. The actual maintenance of helicopter varies according to the age and type of the machine. However, to equalize the effect PHL creates a provision for maintenance over the scheduled maintenance period of the helicopter specified by the manufacturer. The provision is created based on the actual hours of operations of the helicopters during the years and the technical estimate of costs of repair per flying hour. The technical estimate for each kind of helicopter is provided by the manufacturer / other sources.

(ii) The other expenses charged to this head are freight, transportation, handling charges and demurrage, cartage, storage, rotables, repairs and stores written-off.

(iii) **Employee cost.** : The employee cost in PHL reflects a combination of the status of the Company PSU. From a mere 7% of the total expenses in FY 94, the cost have increased to 26% of the total expenses in FY 1998 and 30% in 2014. On a comparative yardstick, the Indian Aviation Industry average of employee cost is 18% whereas the global average is 24%. Overstaffing and imbalanced remunerations have further increased the costs.

Constant demands, stir and strikes by the different unions of the company have forced the management to increase the remuneration levels which has resulted in the increases in the fixed costs.

- (iv) **Insurance:** PHL spends between 4-5% of the total expenses on insurance of its assets, including helicopters, pilots and spares. Though the costs have not reduced in absolute terms, the insurance premiums have been on a decline over the past few 3 years because of implementation of SMS at Organizational level.
- (v) **Depreciation:** The Company has been charging depreciation at the applicable rates as per the Company Law Board. Based on the aforesaid, the Dauphin fleets of helicopters, which are the largest and form the substantial part of the total assets, were nearly fully depreciated in FY 2002 and further 2010. Further, reduction in depreciation charges due to the increased useful life of helicopters under the new Companies Act'2013.
- (vi) **Other expense :** These expenses have varied over the past few years and constitute sundry expenses and fixed costs of the company. These expenses peaked in FY 1997 due to a large provision for doubtful debts. The expenses formed 11% to total costs in FY 1998 and presently it is 12% of total expenses.

5.03 **Profit**

- (a) **Operating Profit:** The operating profit margin of PHL has fluctuated due to a combination of various factors, viz. staff costs, maintenance expenditure and utilization of aircraft.

As mentioned earlier, the provision for maintenance cost booked to the profit & Loss Account by PHL are higher than the actual costs on payment basis during the year. Accordingly, if the provision amount is reversed and the actual costs incurred are charged to the P&L then the profitability of PHL increases and stabilises as shown hereunder:

As can be seen from above, the operating margins of PHL increases significantly if actual maintenance expenditure is charged to P&L Account.

5.04 **Balance Sheet – Assets**

- (a) **Fixed Asset :** PHL's gross fixed assets constitute primarily of helicopters (over 90%) and is Rs. 428.87 crores in FY 2009-10. Thereafter due to new acquisitions the net block has increased steadily to presently stand at Rs.933.94 crores (including Capital work in progress and Tangible Assets).

- (b) **Current Assets** : These consist of interest / income accrued, inventories and sundry debtors besides cash and bank balances and loans and advances which have already been included above due of their nature. These assets have not varied considerably and have been in tune with the other fixed assets and the business of PHL.

5.05 **Balance Sheet – Liabilities** :

- (a) **Shareholders Funds**: The initial contribution from the GOI and ONGC of Rs. 50.00 crores constituted the equity capital up to FY 1993, where after conversion of loans increased the capital to its present level of Rs. 256.62 crores.
- (b) **Reserves and surplus**: PHL has steadily built up its reserves by following a conservative dividend policy. The Company had accumulated reserves of Rs. 268.22 crores upto FY 2013-14.
- (c) **Current liabilities**: The current liabilities of PHL constitute primarily the loan liability of PHL to the Central Government. This loan was given by the GOI for the acquisition of West land Helicopter sot PHL and aggregates Rs. 471.22 crores.
- (d) **Provisions**: Provisions for maintenance maintained by PHL forms the majority of provisions at Rs. 82.85 crores upto FY 2013-14. .

CHAPTER – VI :: SWOT ANALYSIS

Pawan Hans Limited is well known Helicopter Company in India for its reliable operations with a mix fleet of 46 helicopters. However, there are various challenges ahead to meet the emergent requirement of customers. Pawan Hans has carried out an analysis of its operating environment. The traditional business tool for doing this is a SWOT analysis (strengths, weaknesses, opportunities and threats). Accordingly, the strengths and weaknesses are factors internal to the organization.

6.01 Strengths

- (a) Early mover advantage: PHL is the pioneer in the field of commercial helicopter services in India and has developed considerable technical expertise in offshore operations.
- (b) PHL is the largest player in the industry which provides it the ability to charter the future course of the Indian industry.
- (c) Large pool of highly experienced helicopter pilots and technical personnel.
- (d) Well developed maintenance infrastructure facility which is unparalleled in the country.
- (e) Presence of ONGC as a share holder as well as stakeholder which enables PHL to earn a premium for the services offered.
- (f) Being a Government organization makes it more acceptable to Government customers.
- (g) PHL has been achieving a net operating profit margin of more than 10% and globally only a few select operators have been able to churn such profits after adjustments of actual expenditure against costs booked.

6.02 Weakness

- (a) In an industry where timely and efficient service is the key success factor, PHL has been plagued by a plethora of IR problems. This has resulted in shifting of business to competitors. The matter remains unresolved given the regular disruption in the work.
- (b) Lack of independent decision making and delegation: since PHL is a PSU, its decision making has to adhere to the precepts of parliamentary democracy. This necessarily imposes constraints on the ability of PHL to adopt flexible management policies with quick turnaround of decisions.

- (c) No full time functional Director other than CMD causing delay in decision making process.
- (d) PHL is a single customer driven company i.e. ONGC and State Govt. and it has unable to develop alternate market which exposes it to high operational risks.
- (e) The cost based pricing has resulted in lack of motivation to effect operational improvements. In fact, PHL has been passing some of its inefficiencies to the clients through this pricing.
- (f) The network pricing adopted by PHL i.e. pricing based on the type of helicopter used instead of kind of activity performed has allowed the competition to out price PHL in some of the segments.
- (g) In comparison to the global standard, PHL has high operating costs. In spite of these high costs, PHL does not have an effective information system which would regularly monitor these costs and provide the management with the requisite MIS to tackle the problem.
- (h) PHL has 20 employees per helicopter which is much above the global industry average of 5-6 employees per helicopter. Globally, pilot and technical personnel form the major chunk of employees in a helicopter service provider. The ratio of Pilot and technical personnel per helicopter in PHL is higher than the global industry standard. Additionally the non-technical staff constitute of major chunk as proposed to the international standards.

6.03 Opportunities

- (a) Globally, Oil and Gas account for 36% of the revenues of the commercial helicopters operators. ONGC is the largest customer for helicopter service in Indian and PHL has developed considerable expertise in their operations which needs to be exploited to their advantage for future sustainability.
- (b) As the helicopter industry grows in India maintenance contracts would become a lucrative business opportunity in view of the well developed maintenance infrastructure of PHL.

- (c) Tourism has largely been an untapped market in India which could be exploited especially in view of 7-8% per annum growth projected in the tourism sector over the next 5 years.
- (d) PHL has developed considerable expertise in helicopter operations which makes it well positioned to exploit opportunities in the region.
- (e) Business diversifications in Seaplane & Small Wing Aircrafts and development of infrastructure like Heliports/Helipads.
- (f) Helicopter Industry in India is in nascent stage. Therefore new business opportunities may be explored such as EMS, Law enforcement etc

6.04 Threats

- (a) The company had been successful in the past because of lack of competitions and stable business from ONGC. However, in the present environment of increased competition, the company has been losing its market share and has been unsuccessful in stemming the downtrend.
- (b) ONGC has decided that it would not be dependent on a single operator for their operations and hence has inducted GVHCL and Heligo for some of its operations. PHL has lost its monopoly position and would have to face further competition in the future.
- (c) Employees costs have increased by 23% over the last five years which has drastically affected the operating profit of the company.
- (d) PHL has a contingent liability aggregating to Rs. 470 crores on account of West land helicopters. This outflow would reduce its reserves of liquid assets.
- (e) PHL's fleet of Dauphin N & N3 helicopters, which constitute the majority of its fleet, have been operating for over 28 years in a hostile (off-shore) environment that has affected its operational efficiency.
- (f) ONGC its primary customer has indicated that it may prefer to us light twin engine helicopters as they may be more cost effective for its production task.

6.05 Conclusions

Helicopter operations are very expensive and require a very huge capital outlay. For this, proper marketing strategies and careful planning is required to ensure that returns on investment shall remain greater than the initial investment.

Pawan Hans should take the opportunity to expand its operations and cover a larger geographical area across the country. It should grow into the untapped markets such as MRO, infrastructure development like Heliports/Helipads, Skill development seaplane & small fixed wing operations to promote regional connectivity and also offer its bucket of services to the end customer. Technological advancement and investment in information technology is greatly helps PHL to minimizing its operation cost as an opportunity.

Government support, state of the art maintenance facilities and large pool of skilled workforce is a great strength to diversify its objectives. But rationalization of Manpower and their optimal utilization is emergent need to bring down organizational operating cost only by expanding its operation by way of diversification into foray of services as PHL having large number of employees per helicopter than the international standards.

PHL can take a great leverage in the emerging helicopter industry as being a part of Government and ONGC (A fortune 500 company). This dual shareholding and well developed In-house maintenance facility may add great Brand value for PHL. The contingent liability aggregating to Rs. 470 crores on account of Westland helicopters reduce its reserves of liquid assets are big bottlenecks to launch its public issue to generate more funds to meet its expansion plan by way of acquisition of new aircraft.

PAWAN HANS LIMITED

SECTION – C

BUSINESS STRATEGY:

A ROAD MAP FOR GROWTH

Flying with Pride from the City of Joy



Darjeeling

Balurghat
Malda

Durgapur

Shantiniketan

Kolkata

Gangasagar

Government of West Bengal in association with Pawan Hans launched regular helicopter services connecting various strategic towns and spiritual destinations timely and efficiently. Helicopter service from Kolkata connects various destinations like Gangasagar, Durgapur, Malda, Balurghat and Shantiniketan. **This heralds a new beginning for Pawan Hans in commercial venture.**



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1.0 Background

This Plan provides a roadmap for growth, diversification and consolidation of business in the backdrop of a very rapidly growing Indian economy.

2.0 Overview

After declaration of the year 2008 as “The year of The Helicopter” by the Ministry of Civil Aviation had added special dimension to the importance of the helicopters and the need to strengthen the helicopter industry in India. The multi-faceted role of the Helicopter in peace time operation such as National Disaster Management, Police Surveillance, Fire Fighting Activities, Medical assistance, Search and Rescue operation, and Oil and gas pipe line surveillance has made the Helicopter indispensable to any administration at the district or state level. Apart, the role of the helicopter for, intercity travel, Tourism and Business Charters has also become significant and strategic to any aviation sector development.

Pawan Hans is engaged in providing helicopter support services to the oil sector in offshore exploration, operate in hilly and inaccessible areas and make available charter flights for promotion of travel and tourism. PHL has emerged as one of Asia’s largest helicopter operators having a well-balanced own operational fleet of 46 helicopters at present. PHL has projected 10% growth in Flying Hours to 33,000 and 14% increase in Operating revenue.

While there are around 35,000 Helicopters in operation worldwide, in India the share is even less than a meager 1% at just less than 300 helicopters, despite being the second most populous nation in the world witnessing a sharp economic growth, therefore there exists significant growth opportunities by tapping the latent market potential.

At a high level, to strengthen and improve our position in the competitive market, PHL shall be looking to:

- Renew existing contracts.
- Maintain high standards for safety and reliability
- Enhance its core competence in Offshore operations by acquiring new medium class helicopters
- Selectively pursue new types of operations whenever opportunity arise such as seaplanes, technical services of hotline washing, thermal imaging, aerial coverage etc.
- Improving focus on customer needs
- Strengthen relationship with customers and other business associates.

3.0 Growth of Helicopter Operations in India

Helicopters have a tremendous future in India. Given the ability of helicopters to fly in varied environments and also due to the fact that infrastructure for fixed wing aircrafts can expand only incrementally, it is but natural for helicopters to grow at an unprecedented pace. At present, India has only 267 civil helicopters in operation, which is minuscule in comparison to the international figure of around 35,000. The Government aspires for rapid development of helicopter operations – to induct increase significant number of helicopters in Indian Skies. In order to achieve this objective, the Strategic Plan of the PHL list the following to enable growth of Helicopter operations during next 5 years:-

- Create the right infrastructure for the rapid growth of helicopter operations. Heliports shall be set up in the four regions in the country – Delhi in North, Mumbai in the West, Kolkata in the East and Chennai/Bangaluru in the South in the first phase. Development of heliports for air connectivity through helicopter services in remote areas in J&K, M.P, Chattisgarh, Orissa, A.P, Gujarat etc. Special requirement of air connectivity to NE region, J&K, A&N islands, Lakshadweep islands as socio-economic commitment.
- These heliports shall be developed both in the public, private and joint sector. The responsibility of developing heliports shall primarily rest with the Airports Authority of India. However, this critical function can also be performed by the Pawan Hans Helicopters Ltd. and also by the private sector.
- The Greenfield Airports Policy shall be suitably modified wherever necessary to adapt to helicopter operations' needs.
- States would be encouraged to develop helipads and heliports through subsidy schemes like the Infrastructure Development Scheme of Tourism Department.
- The Government shall periodically review the need for helicopter corridors and update them according to changing needs of the industry. Air Space Management shall be done in a way to enable optimal growth of helicopters along-with fixed wing.
- Tourism and Medical evacuation are going to be major drivers of helicopter growth in India in the years to come. Medical Evacuation would be triggered by the Government through the National Disaster Management Agency and NHAI.

- Since medical evacuation for private people still continues to be an expensive proposition medical insurance companies would be encouraged to formulate appropriate packages to include the cost of such evacuation. In the case of Government Servants CGHS would act as a facilitating vehicle.
- Coordinate with line Ministries to develop helipads in major and prestigious government and private hospitals.
- In order to facilitate growth of helicopter operations in India a separate wing for helicopters shall be developed in the DGCA and AAI. The Regulatory regime for helicopters would be continuously upgraded to enable blossoming of the sector.

Sl. No.	Theme	Strategic Initiatives
1.	Air Connectivity through Helicopter Services	Rapid development of Helicopter operations
2.	Infrastructure Creation	i. Create Heliports and Helipads in the country ii. Develop world class MROs for Helicopters iii. Create Helicopter Training Academy for HR capacity development

4.0 Areas of Focus – During XII Five Year Plan

Area of Focus	Objectives	Initiatives
Business	Improve operating performance	- Identify new business and convert business opportunities - Providing high quality, timely customized service
Customer	Build long term relationship	- Provide competitive pricing and specialized service - Improve customer satisfaction
Organization	Lean structure with higher accountability and responsibility	- Staff rationalization - Profit center introduction

Learning & Growth	Constant up gradation of staff knowledge to achieve the common goal	- Provide information technology support and institutionalize external and internal training
Financial	Maximization of shareholders' wealth	- Improve yield and Cost reduction

4.01 PHL proposal to give a major boost to Helicopter operations in India over next 5 years

- Government may approve a pilot project of deploying helicopters at 15% of 618 districts. The projects may be funded centrally for the procurement of these helicopters & building of helipads up to sub district level.
- 20% of these helicopters may be deployed at strategic locations for disaster management.
- 50% may be deployed as mobile medical service for meeting the requirement of emergency health services & primary health care.
- 30% may be deployed exclusively for law & order and effective governance of districts.
- The operating cost of helicopters may be covered under various government schemes.
- Emergency & primary health care can be funded through primary health care scheme and medical insurance schemes.
- Disaster management, Law & order helicopters may be covered under disaster relief funds and police modernization funds.
- The pilot project duration may be five years to evaluate the performance and effectiveness of helicopters in such services.

Based on the Business development and the long term strategic interest of PHL, the corporate plan of Company projected the following for growth and consolidation of business interest:

5 – YEAR PLAN		HELICOPTER PROCUREMENT			
Sr. No.	SECTOR	LIGHT	LIGHT – TWIN	MEDIUM	HEAVY/LONG RANGE
1	OIL	0	8	10	8
2	CORPORATE	5	5	0	0

3	TOURISM	7	5	9	5
4	AIR AMBULANCE	2	2	0	0
5	CROP SPRAYING	5	0	0	0
6	NDMA / MEDIVAC *	3	5	0	10
7	DIST. LAW & ORDER & ADMINISTRATION	4	5	7	0
	TOTAL	26	30	26	18

** Fleet funded by other Agencies, O&M by PHL*

4.02 Conclusion:

- One of the fastest growing Economy of the world
- Aspire to be the third largest economy of the world
- Helicopter industry is projected to grow.
- These aspiration cannot be achieved without the growth of civil aviation sector
- India needs more helicopters to perform numerous roles for public goods
- Helicopter industry needs suitable ambience and facilitation for its growth

The potential for growth in the Helicopter industry is enormous. A step wise approach to retain and expand market share of business should be undertaken. Activities would range from consolidation of business to new ventures such as the Heliports, MRO activities and tap the tourism potential. PHL should maintain its leadership in fleet size, maintenance and overhaul excellence, and be the sole source for service and maintenance of helicopters for State Govt. and District levels.

5.0 Proposed Initiatives:

5.01 Helicopter Operations

- Strengthen competitive position in existing markets. Deployment of additional helicopters with existing customers shall be a focus area. Secondly, upgrading customers into higher capacity helicopters shall also be a key strategy.
- Acquisition/Leasing of new fleet Additional fleet acquisition/Leasing aircraft to meet emerging requirements of customers in various segments
- Pursue Business in new areas like heli-tourism; assist Government in Law enforcement and Medical evacuation through financial support by GBS, hotline washing of power insulators, etc.

- Working together with State Governments, Ministry of Tourism and other stakeholders such as NEC and Ministry of DoNER, initiative will be taken to **develop tourism related helicopter activities**.
- Secondly, as per well known international practice, efforts will be made to have some **helicopters deployed with national security agencies** such as Ministry of Home Affairs, National Disaster Management Authority, State Police etc for non combat helicopter support in civilian areas.
- Package for **medical evacuation and air ambulance** is planned to be developed discussing the same with multiple stakeholders including hospitals and rooftop helipad possibility.

5.02 Setting up Training & Skill Development Institute:

Development of Hadapsar (Gliding Centre Pune) as a heliport, state of the art aviation training school, aero modeling school and other enthusiast activities which will be a first in India.

5.03 Establishing Heliport: Rohini Project at New Delhi.

With Phase 1: Heliport at Rohini having been completed well in time for XIX Commonwealth Games, Delhi, basic helipads/apron and other associated facilities are already available. It is expected that progress will be made towards completion of Phase 2 which is already under progress at present and will lead to development of full fledged heliport.

5.04 Sea Plane and Small Fixed Wing Aircraft operations.

Marketing of sea planes and small fixed wing aircraft operations to existing and new customers is planned now such as for Lakshadweep, Madhya Pradesh, Kerala, J&K, Andaman and Nicobar etc.

5.05 Improvement of customer satisfaction.

It is envisaged to develop a reliable customer satisfaction measurement framework which can be administered and results collated for the final ratings.

6.0 Proposal for Air connectivity by helicopters for next 5 years:

Keeping above aspects in mind and to meet the requirements of NER on long term basis, a study has been conducted by PHL with NE States. The Salient features of the study are as under:-

- Acquisition of suitable helicopters, which could be funded by DoNER / NEC, to whom these helicopters could be earmarked and can be used on dedicated and long term basis for air connectivity in NE Region (on subsidized basis in line with the present MHA subsidy to NE States) as per the direction from DoNER / NEC and for VIP transportation, Medivac, Disaster management, tourism etc.



- The helicopter services would be easily utilized as Feeder Services for the passengers coming from different parts of the country in the North East by civil flights/charter flights by Fixed Wing also.
- The helicopter, crew, inventory etc. are based at the Base designated by the State Govt.
- The helicopters would be deployed as per DONER / NEC directions based on ground situation and also the agency may coordinate and authorize centrally tasks such as VIP and Medivac or other Emergency tasks from nearest available helicopters for faster turn-around time.
- The outlook for such services would be long term so as to result in perceptible improvement in the connectivity of the regions in the North East India.
- A detailed hub and spoke model, which may have participants such as long distance fixed wing operators (higher capacity), medium distance fixed wing capacity (low capacity) and medium to short distance (low to medium capacity) helicopter services for the last mile.

- It is high time that a consolidated approach be developed to use helicopters for air connectivity in entire North East Region. The concerned State Govts. and North Eastern Region can be supported by helicopters (through NEC) on dedicated basis keeping long term perspective in mind for regular passenger services, VIP transportation, Medivac, disaster management etc..
- The challenges of coordination and varying standards as well as security concerns would be taken care of by a Nodal Agency (say NEC/Ministry of Civil Aviation through PHL) resulting in real improvement of connectivity of these regions that has hitherto been lacking despite continuous efforts.
- The services could be cross utilized in an effective manner with little requirement of extensive coordination in times of emergency such as natural and manmade disasters etc.
- The scale of integrated large scale operations throughout the whole North East region would lead to opportunities for cost optimization that can further be passed on to the passengers and is also expected to reduce the subsidy burden on the Govt. of India.
- Operate Hub and Spoke model connectivity services throughout the NER: The places shown as connected to Guwahati can be developed as intra region hubs for further last mile connectivity exclusively helicopters. On the major routes, the services could be run with fixed wings of appropriate capacity.

6.01 State Specific Connectivity

Connectivity should additionally be provided between state capital and Tier-II & III cities as demand is available in these sectors based on local population and non local requirement. Depending on the locations altitude and prevalent climatic locally, helicopter type could be medium or heavy while considering passenger traffic/demand as well. Pax capacity for heavy can be taken as average 20 pax and Medium as average 8 pax. Fares could be worked out using the indicated flight timings and costs by considering average number of pax carried depending on helicopter type. The fare recovery will depend on amount to be financed/subsidized by DONER/NEC and the remaining to be recovered from passengers/state governments (if any).

6.02 Intra and Inter-State / Region Connectivity

Adequate connectivity, at a basic level must be provided between state capitals in a mesh format and thereafter from state capitals to smaller cities in a hub and spoke model within individual states as detailed in the next section. This model of connectivity visualizes helicopters deployed and available at disposal of authorities in specific regions to undertake flying commitments in the region. At a high level, say North Eastern India can be divided into around 5 regions for the purpose of providing connectivity from these centralized locations where the air assets will be positioned for meeting various requirements in the region such as passenger services, VIP transportation, Medivac, Disaster management etc.. At the same time, these increased activities/extension of the connectivity should also be supported adequately with Infrastructure facilities like City Port (Heliport), Helipads with required facilities at district Head Quarters, trained and skilled manpower and so and on.

6.03 State wise allocation of Helicopters:

State	Proposed No. of Helicopters	Helicopter Type	
		Single Engine	Twin Engine
Arunachal Pradesh	4	0	4
Meghalaya	2	0	2
Sikkim	2	1	1
Tripura	2	1	1
Manipur	2	1	1
Mizoram	2	1	1
Nagaland	2	0	2
Assam	1	1	0
Common to NE Region	3	0	3
Ministry of Home Affairs	1	0	1
Total	21	5	16

6.04 Operating Cost Calculations:

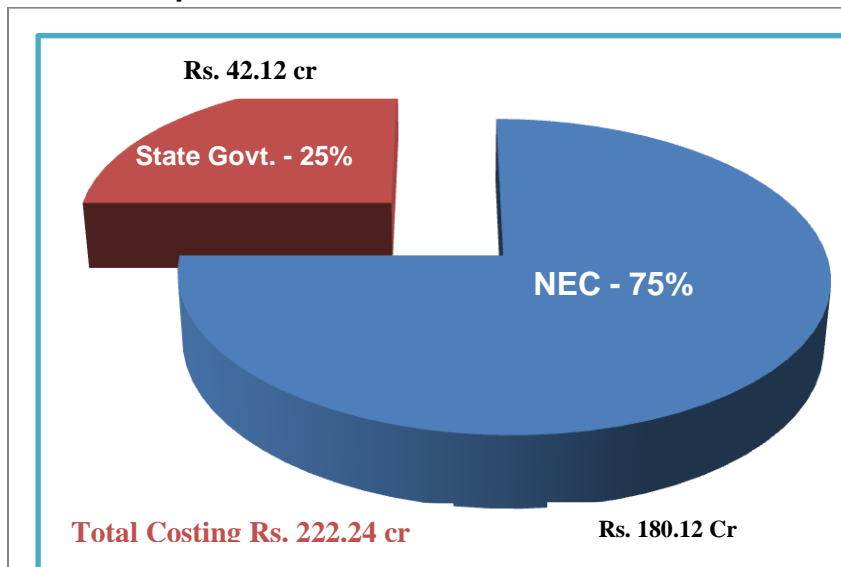
States	Total Flying Hours (yearly)	Total Costing (Rs. Crore) - yearly
Arunachal Pradesh	13200	85.02
Sikkim	1800	16.68
Tripura	1200	13.08
Manipur	1200	13.08
Mizoram	1440	14.52
Nagaland	1440	14.52
Assam	720	10.20
Meghalaya	1920	17.40
Common for NE Region	3360	26.04
MHA	960	11.60
Total (Crores/Year)		222.24

6.05 Total Financial Implications

Costing Type	Total Cost
A). Total cost of expenditure to be borne by the States	Rs 42.12 Crores
B) Total cost of expenditure to be borne by NEC for one year	Rs 180.12 Crores
Total cost of operation (A+B)	Rs. 222.24 Crores
Total cost of expenditure to be borne by NEC for Five years	Rs 900.6 Crores

*(*the above charges are exclusive of service tax)*

6.06 Percentage sharing of total Operating Cost Commercial Operations



The above projected cost are available for provision of helicopter on lease only and does not include charges for anything else/ facility creation/ logistics/ security/ base setup/ helipads i.e. other than ticketing, which will need to be set up by State Govts. /DONER-NEC at separate cost. Impact of ticketing etc only may be estimated as a ballpark level around 5% of operation cost.

6.07 **Funding for infrastructure development:**

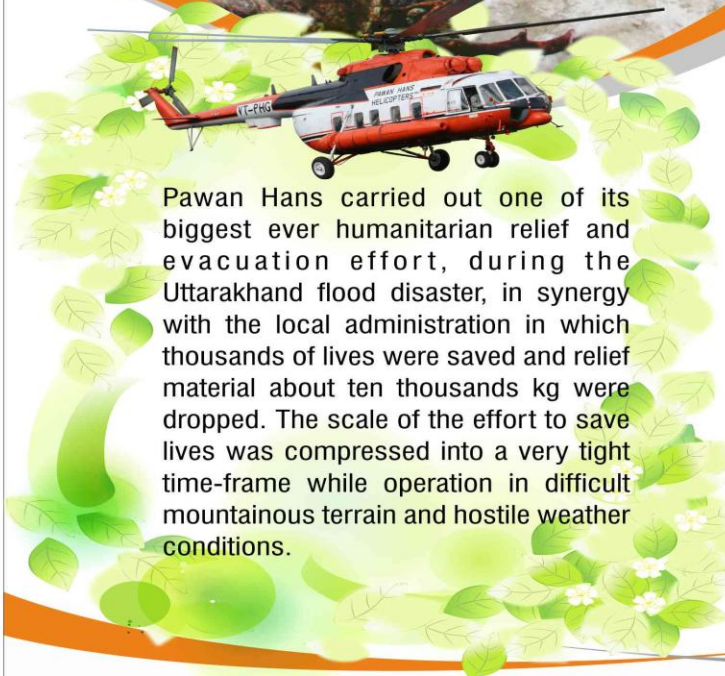
Having Helicopter connectivity but without adequate infrastructure facilities and trained and skilled manpower, will not serve the purpose in long run. Therefore, it is need of hour that with the increased connectivity, these basic resources are also to be made available.

There is need to create a City Port (Heliport) at State Capital like Agartala, New Shillong, Guwahati etc . Having City Port would not only ensure safety, security of VIPs, for disaster management, law and order management but also be great convenience for general public travelling by helicopter. The City Port would be a showcase for the state where all required facilities like terminal building, passenger lounge, ticketing counter, ATM, tourist counter, airlines counter would be available. The estimated cost without Land cost could be around 20.00 to Rs. 25.00 Crores or so depending upon the kind of facilities to be created. The Night landing facilities would also be added advantage which could be created in second phase.

At the same time, human resource are also to be created/developed keeping long term perspective in mind. Few students could be admitted for recognized AME courses say in PHL Institute (PHTI), which could be funded by NEC. Further, candidates could be given BCAS training for frisking, handling of passengers. They could also be trained on Marshalling, ticketing etc enabling them to be employable and at the same time availability of trained manpower for increased activities in air connectivity.

Think of Rescue & Relief

Think of Pawan Hans



Pawan Hans carried out one of its biggest ever humanitarian relief and evacuation effort, during the Uttarakhand flood disaster, in synergy with the local administration in which thousands of lives were saved and relief material about ten thousands kg were dropped. The scale of the effort to save lives was compressed into a very tight time-frame while operation in difficult mountainous terrain and hostile weather conditions.

Pawan Hans plays a crucial role in rescue and relief operations. In its saviour avatar, Pawan Hans showed its rescue and relief expertise during the recent natural disaster in Uttarakhand, earthquake in Sikkim and flood affected areas of Odisha where it rescued thousand of lives and carried relief materials.



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6.08 Disaster Management Services

6.8.1 Role of Helicopters in Disaster Management

Across the globe, helicopters has proven them a vital part of any disaster management policy. To operate with limited infrastructure and capable to reach at remote place, where other transport is not possible, made the Helicopters a vital role for any rescue missions in disasters. But in contrast to world scenario, in India only 1% of total 400 available helicopters are available for Emergency Medical Services. Helicopter can be deployed with a number of rescue and other disaster management programs:



- a) Earthquake
- b) Floods
- c) Cyclones
- d) Fire
- e) Any other disaster

Helicopters for NDMA In India, NDMA has been assigned a very crucial role of disaster management, which need adequate infrastructure to cater to rescue operations. Helicopters can play a very important role for NDMA by increasing their capability and quick response in case of any action required in Disaster situation.

The utility of air transport mechanism has been proven beyond doubt during various disasters including natural events and non-natural events. Air transport has its uses both before say an event, if anticipated and after the events if sudden/unanticipated. The approaches though are quite unique in each of the scenarios and Standard Operating Procedures specifying various aspects including coordination and control need to be specified in advance Deploying Helicopters in NMDA will enable them to carry out any rescue Operation at Surface, Air or Sea.

Helicopters can play key role in disasters in following areas :

- Highly populated areas
- Remote locations
- Geographically challenging areas such as mountains, forests, sea
- Places having little or no aviation infrastructure

6.8.2 Types of Disasters

(i) Natural Disasters

- Flood
- Earthquake
- Tsunami
- Forest Fires



(ii) Non-Natural Disasters/Incidents

- Road/Air/Train/Sea accidents
- Industrial Disasters (including Nuclear)
- Fire
- Crowd related disasters (Stampedes etc)
- General Evacuation (including for Geopolitical reasons)

6.8.3 How Helicopter can play crucial role in Saving Life - Concept of Golden Hour

In emergency medicine, the golden hour refers to a time period lasting from a few minutes to several hours following traumatic injury being sustained by a casualty, during which there is the highest likelihood that prompt medical treatment will prevent death.

It is well established that the victim's chances of survival are greatest if they receive care within short period of time after a severe injury.



This is a well known concept and widely practiced as well in developed countries wherein adequate medical attention (beyond on site /primary medical attention) is targeted to be provided to a person within short time of the trauma incident. This is a specialized job since in emergency medicine, the golden hour refers to a time period lasting from a few minutes to several hours following traumatic injury being sustained by a casualty, during which there is the highest likelihood that prompt medical treatment will prevent death. It is well established that the victim's chances of survival are greatest if they receive care within a short period of time after a severe injury.

6.8.4 Road Map & Action Plan

The Strategic Plan of the Ministry of Civil Aviation covers the roadmap for the Aviation Industry over a Five year period. Keeping the Helicopter Industry in view and its growth potential through the XII Five Year Plan Period (2012-17), a roadmap has been proposed wherein the number of civil helicopters may increase from the present 270 to over 400.

6.8.5 Ministry of Home Affairs

- a) Acquisition of 20 Nos. fully equipped medium helicopters for maintenance of law & order, anti naxal activities, coastal surveillance and for metro cities in India.
- b) Acquisition of helicopters to provide heli support to 618 districts in India by deploying initially upto 62 helicopters, equivalent to 10% of the total number of districts, ensuring wide coverage for Disaster Management, Emergency and primary medical care, medivac, Law enforcement etc.

7.0 HHH (Highways – Helicopter– Hospital) Scheme/ Concept for Disaster Management

To make the Disaster management Policy successful, it is important to have adequate infrastructure in place. For effective Disaster Management policy, HHH (Highways–Helicopter–Hospital) concept can play an important role. Today, Highways has seen the maximum no. accidents as compare to other parts.

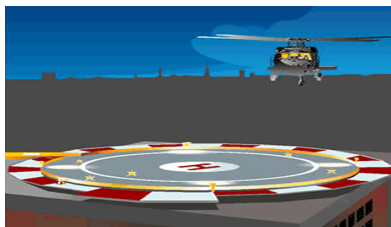
In India, about 80% passenger traffic is carried by the roads and NHAI carry about 40% of the total road traffic. The number of vehicles has been growing at an average pace of 10.16% per annum over the last 5 years and expected to continue in near future as well. As per available statistics, 6% of the world's road accidents happen in India and 1 person dies in every 6 minutes.

The maximum casualties occur because of lack of medical aid near highways and blockages/ interruptions on highways. If we can provide medical aid to the patients in the golden hour, there are high chances to save their life.

Under HHH scheme, NDMA may like to work jointly with National Highways Authority of India (NHAI) to provide emergency services through Helicopter at highways. NHAI may identify the nearest hospital/ trauma centres to the highways which can be connected by the Helicopter. In the event of any emergency, Helicopter would be used to evacuate the patients from accident zone at Highways and admitted to the nearest hospital in short time. This concept may be explored by NDMA to be a part of their Disaster Management Policy.

8.0 Infrastructure Development:

Helipads are to be constructed at most of the sub-division and block headquarters for carrying out search, rescue & relief operation and for distribution of essential commodities in case of any disaster situations.



The disturbing issue is that most of the helipads have

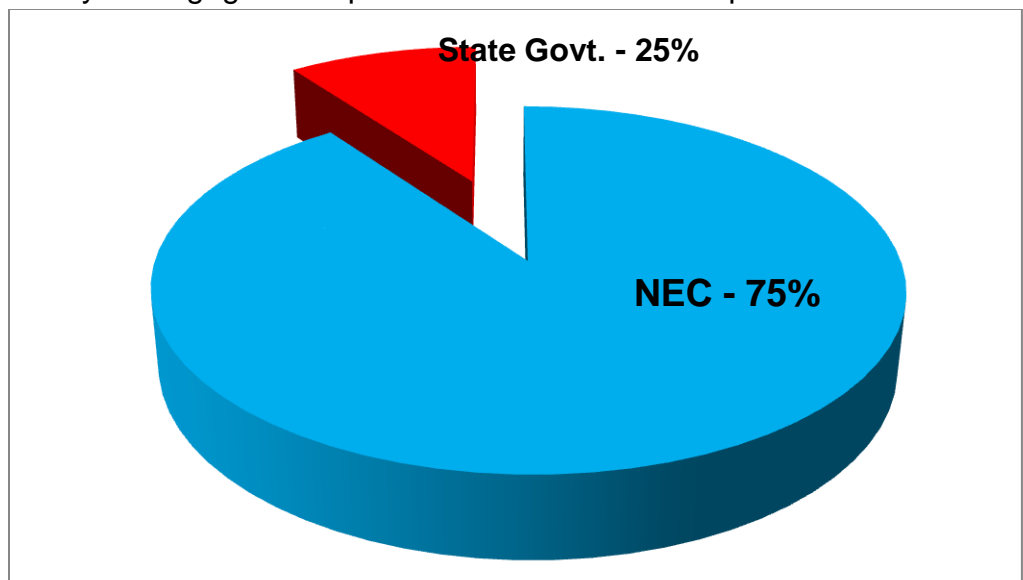
not been used for landing of the helicopter(s) till



date. Therefore, there is a requirement to enlist these helipads as the existing infrastructure / resource to make provision for bringing these helipads under regular service so that the helipads remain functional at the time of real disaster. It is essential to allocate adequate funds for making all helipads functional with periodic maintenance of the helipads.

Need has been felt in entire NER to have helicopters to meet the requirements of emergency ambulance services or any other emergency services in concessional rate to the State Govt., may be 75% cost to be borne by NEC and 25% by the respective State Govts. Need has also been felt for provision of night landing facility in the helipads/ heliports at district headquarters and temporary night landing facility in remote areas for carrying out emergency search and rescue and medical operations in the night time.

Provision of dedicated manpower and their skill development in existing helipads may be engaged for operationalization of the helipads.



8.01 Medevac and Disaster Management Operations Cost

Training of Disaster Management Team Members (dedicated members in each district/ States) on air search and rescue and first aid services through helicopters and provision of their annual refresher trainings shall be incorporated with passage of time in the similar pattern of cost sharing model for general Helicopter services in North Eastern States.

Empowerment through Education:

CSR Initiative of Pawan Hans

Computer Education Training to EWS in Guwahati, Assam



Education and Skill Enhancement Activities



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Shouldering Responsibilities

With a Smile

Being a responsible corporate entity, Pawan Hans is equally concerned about the well being of the society



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9.0 Funding of Helicopters by big PSUs under their CSR Program

Today almost every organization in the Country, depending on their size of business, is contributing a percentage of their Profit to CSR Fund. This percentage varies from 0.5% to 5% of their net profit. In India, big PSUs e.g. Steel Authority of India Ltd (SAIL), Oil and Natural Gas Corporation (ONGC), Indian Oil Ltd (IOC), Bharat Petroleum Corporation Ltd (BPCL), Hindustan Petroleum Corporation Ltd. (HPCL), National Aluminium Company Ltd (NALCO), Gas Authority of India Ltd. (GAIL) are contributing to CSR Activities at a large scale.

These Central PSUs may play a vital role in Disaster Management program of the Country. Such PSUs may consider bearing the purchase and operational cost of one helicopter each out of their CSR fund. These Helicopters may be positioned in one of the proposed States/ Regions, as per their Business presence (e.g. SAIL may consider funding one helicopter for Odisha).

10.0 Seaplane & Small Fixed Wing Aircraft Services

PHL plans Offer Seaplane services that have immense potential throughout India on the model of Seaplane services are recently offered at Andaman and Nicobar Islands by PHL and A&N Administration as the same is expected to give a boost to the ability of meeting the requirements of locals as well as tremendous tourism potential with the typical low level flying, take off and landing near/in the waters.

There exists requirement and suitable natural conditions (availability of large, relatively calm water bodies, both natural and made such as reservoirs etc) in many places such as Lakshadweep Islands, Kerala, Jammu and Kashmir, Madhya Pradesh etc.

In fact, most nations in Europe, Scandinavia having large coastlines have big fleets of seaplanes operating successfully and meeting local requirements. Also, our neighboring country Maldives is operating over 40 seaplanes and successfully meeting the local requirements.

It is pertinent to mention that introduction of seaplane in other sectors in India would definitely further boost up the Tourism and other local industries as the same will:

- Will showcase the mix of latest technology, planning and our rich culture and heritage to domestic and international tourists.
- Will ensure a great customer experience comparable to global level for tourists leading to repeated visits as well as recommendations.
- Expected to mature into a model and profitable heli tourism market which can be showcased.
- Tourism department and others earn additional revenues which may in effect neutralize the Viability Gap Funding provided by the Dept. of Tourism.
- Ability to launch and promote event specific heli tourism services such as seasonal services, demand based services etc at any time of the year at a desired place where infrastructure is available.
- Will lead to infrastructure investment in far off and remote areas which will be good for the local economy and people and an overall positive feeling.
- Services could be cross utilized in case of emergency for local passenger transport, Disaster Management, Ration Sorties, Medical Evacuations and Rescue etc in case of natural and non natural calamities or disasters ensuring saved lives.

Pawan Hans makes Delhi Proud

Pawan Hans Ltd. under the administrative control of Ministry of Civil Aviation (MoCA) has developed a separate corridor for helicopter operations and other services:

- Regular Passenger Service
- Charter Service
- Parking of Helicopters
- Helicopters Maintenance Services (MRO)
- Disaster Management
- Medical Evacuation
- Surveillance activities



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11.0 Creation of Regional Heli-Hubs

- Pawan Hans Limited (PHL) has been a premier Government Undertaking for helicopter operations with the vision to become market leader of helicopter operations & sea planes, providing regional connectivity through small fixed wing aircraft, setting up of MRO facility with international standards and development of heliports/helipads for helicopter operations. The company has been performing satisfactorily during the last decade and has been paying dividend to the Government.
- PHL is in the process of diversifying its business to become market leader in the country and exploring the possibility of expanding its operations in the area of fixed wing operation for intra-state connectivity, MRO business under “Make in India” initiative and establishing Heliports on Heli-Hub concept under a mission mode 2020. Accordingly, an internal ‘Action Plan’ process has been initiated alongwith development of company’s overall business plan.
- The expansion plan for development of more such Heliports in other parts of the country shall be examined in consultation with respective State Government and the funding for such capital projects will need budgetary support through State Govt. for including allotment of land free of cost.
- PHL proposes to create 3 “Heli-Hubs” one each at Northern Region – Rohini, Delhi ; Eastern Region – Guwahati and Western Region – Juhu, Mumbai for developing sustainable growth of helicopter operations, MRO facilities and Skill Development at these Heli-Hubs as details given below:

11.1 Rohini, Delhi – Heli-Hub for Northern Region

A project for development of heliport at Rohini is under progress and the work is scheduled to be completed in February 2016. The heliport consists of Terminal, ATC, Fire Fighting Station and 4 Hangars besides FATO and parking bays for 12 helicopters. The project has a scope to develop MRO-Technical Building and Training Centre in IIInd phase of development plan.

The process for developing and establishing MRO facilities on PPP Model is under consideration and the facility is likely to be made operational for various types of helicopters alongwith completion of the Rohini project. Besides, the Heliport facility is proposed to be used as Heli-Hub for helicopter connectivity to various States under Northern Region.

11.2 **Juhu, Mumbai – Heli-Hub for Western Region**

PHL has a major operational base for its helicopter operation and maintenance repair facility at Juhu besides for other bases under Western Region such as Port Blair, Rajahmundry, Kavaratti, etc. WR has a major maintenance facility to serve Dauphin –N & N3 fleet and Mi-172 helicopters and has set up various workshops for carrying out shop level bench checks and repairs of helicopter's equipments. There is a proposal to develop major MRO facilities at Juhu Airport to serve the huge business potential for various types of helicopters for its own fleet and for 3rd party businesses.

Presently, Juhu Airport is under the control of Airports Authority of India (AAI), transferred from the erstwhile Civil Aviation Department to IAAI long back. There is no regular fixed wing aircrafts operations at this airport and the facility is only used for helicopter operations mainly by PHL and few other private operators. It is therefore proposed to declare Juhu Airport as "Heli-Hub" to meet helicopters' operational needs of Western Region and transfer the ownership of Juhu to PHL from AAI for its development as "Heli-Hub" for helicopter operations and establishment of MRO facilities. There is also a proposal to create Training facilities for Pilots and AMEs under the banner of PHL National Institute of Aviation Safety & Services (NIASS).

11.3 **Guwahati – Heli-Hub for Eastern Region**

PHL has been providing helicopter services to serve various States of North-East Region since 1986 and has currently its operations at Guwahati, Agartala, Itanagar, Aizwal, Meghalaya, Kolkata, etc. PHL has created Regional Hqs for ER at Guwahati in 2013 to serve the growing needs of NE Region. There is a proposal to create "Heli-Hub" near Guwahati Airport connecting various States of NE Region. A proposal is under preparation to acquire a land measuring 25 acres near Guwahati Airport from the State Government at its cost for creating the "Heli-Hub" for ER in line with the heliport at Rohini. There is also a proposal to create and set up MRO facility for various types of helicopters on PPP Model at Guwahati besides creating a Training centre for Pilots and AMEs for skill development in NE Region under the banner of NIASS.

11.4 **Creation of Heli-Hubs for Southern Region is under process**

11.5 **Conclusion**

All these “Heli-Hubs” are proposed to be developed, operated and maintained by PHL and recommended to be included in MoCA’s Civil Aviation Draft Policy. The Heli-Hubs services will be made available to all helicopter operators on chargeable basis in line with airport management concept. Consultant will be appointed to carry out feasibility com implementation study under PPP.

12.0 **ACTION PLAN**

PHL should expand its fleet and acquired several new helicopters with greater range and passenger capacities than previous models allowing them to increase efficiency:-

- 12.1 Continue to expand its role as service provider in Offshore and Onshore oil and gas E& P Sector
- 12.2 Expansion in Tourism Sector: PHL should expand its operations in this sector
- 12.3 By having dedicated services to specific tourist sector with domestic and international potential.
- 12.4 Venture into Corporate Charter Services by providing affordable and reliable services to corporate world.
- 12.5 PHL can tie up with National Disaster Management Authority for rescue and emergency services.
- 12.6 Emergency Medical Services: Enter into the Air Ambulance Services through Government and Non- Government Sector
- 12.7 Explore more opportunities in Seasonal Crop Spraying as to maintain traditional usage of helicopters.
- 12.8 To further consolidate establishment of Heliports under Heli-Hub concept, MRO center and Training School.

13.0 FINANCIAL RESOURCE MOBILISATION

For the proposed helicopter procurement and other capital Projects, the company needs to raise approximately Rs. 900 crores in the time span of next five years. Part of it (upto 20%) can be funded through Annual cash accruals internally.

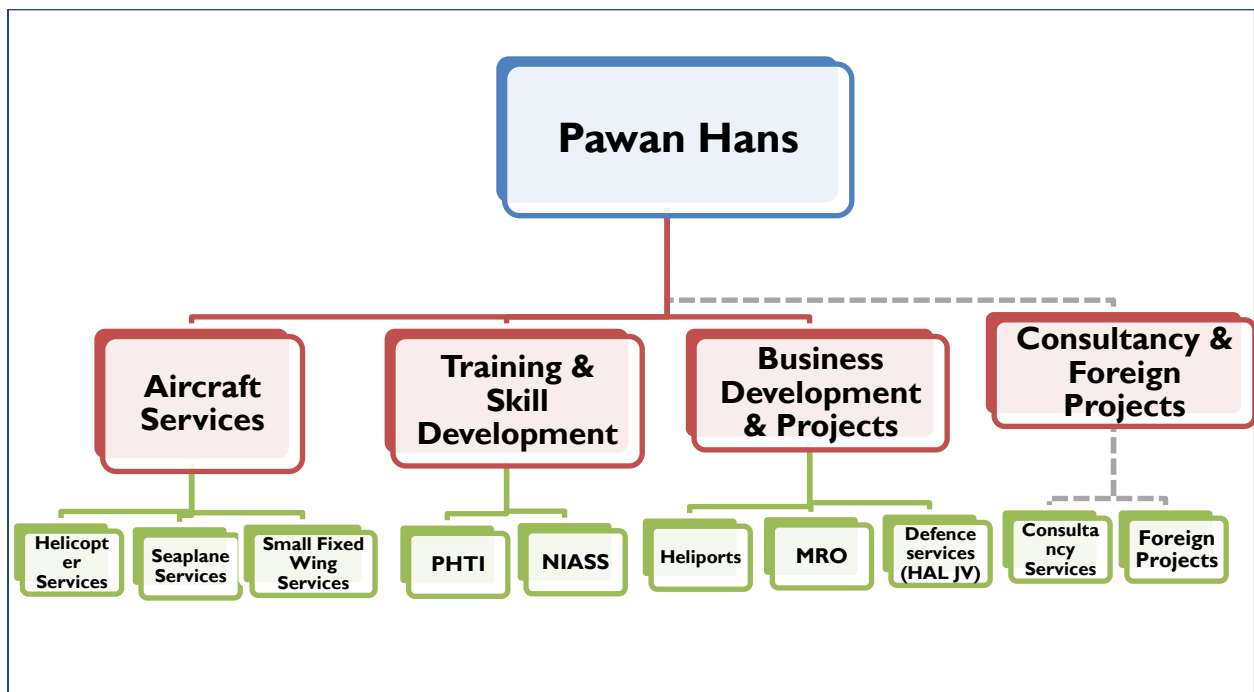
13.1 Equity influx :

- 13.1.1) IPO route
- 13.1.2) Equity influx from Governments
- 13.1.3) Equity Participation from State Governments/ development authorities for Heliport under PPP Framework

13.2 Debt

- 13.2.1) Bonds and other instruments
- 13.2.2) Loans from Financial Institutions/ Banks
- 13.2.3) Others: EXIM, IIFCL etc.

14.0 PHL 2020 Strategic Plan:



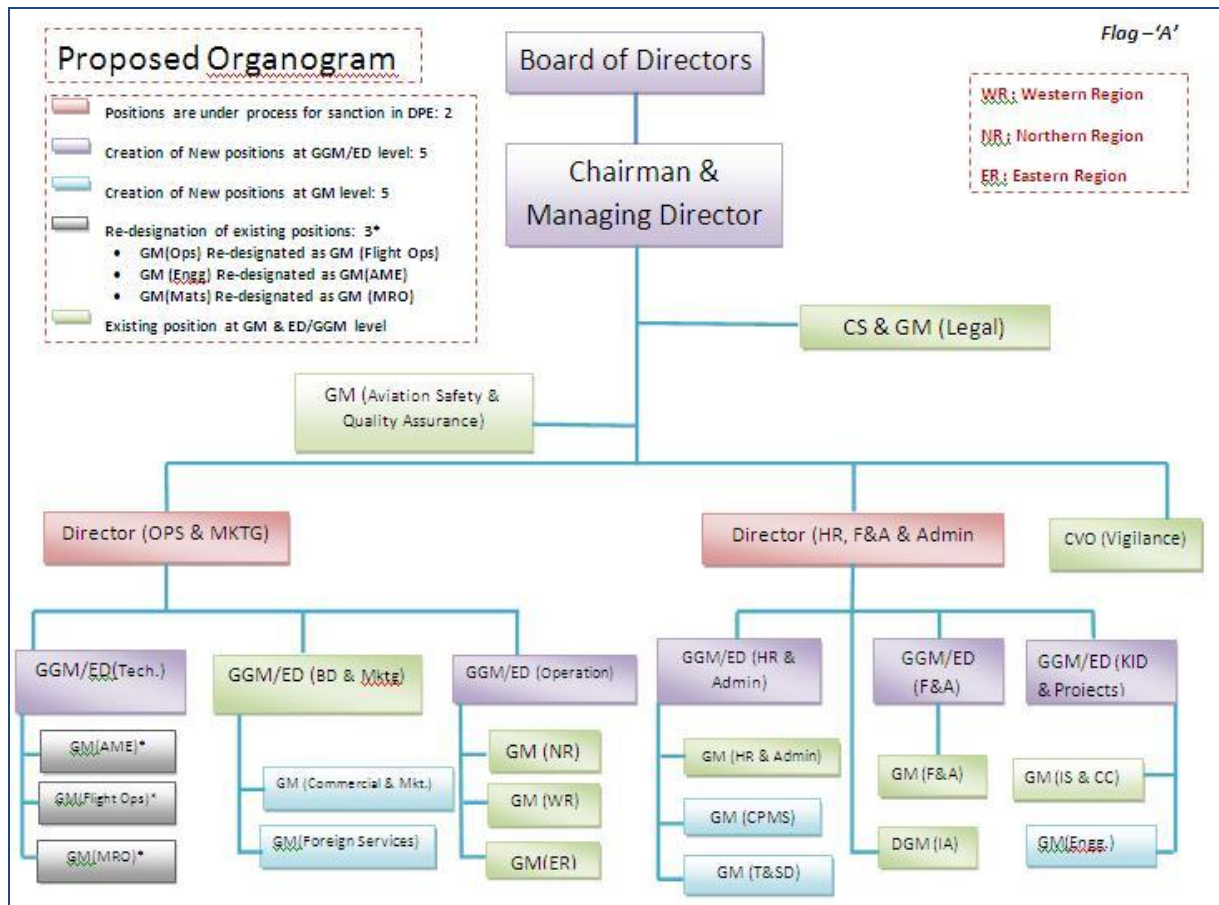
PHL should pursue Business in new areas such as acquisition plans, training of crew and maintenance. PHL should advise the various State Government who have shown interest in the purchase/use of helicopters.

The governments that have shown interest are Uttarkhand, Himachal Pradesh, Gujarat, Kerala, Punjab and the North-Eastern States.

- a) PHL should continue to have a high standard of Maintenance and service standards.
- b) PHL should continue to consolidate Training Centre for pilots and technicians. Heliport in New Delhi/ Mumbai/ Pune.
- c) Create a strategic partnership for O& M contract for Dhruv helicopters, so that marketing and sales can be increased as a result of unique maintenance that PHL shall provide.

14.1 Re-Engineering of PHL Management Structure:

Keeping in view, the need of emerging diversification, Pawan Hans requires strategic changes to remain a vibrant, transparent and system driven organization to meet the growing helicopter demand in the country under competitive environment, new Organization structure has been proposed for implementation consequent to need of the organizational growth plan proposed for approval of two functional directors and three independent directors is under process for DPE approval.



14.2 Summary of XIIth Five Year Plan (2012-2017)

(Rupees in crores)

Existing Fleet	Existing Nos.	New Acquisition	Total Fleet Size	Estimated Cost of New Acquisition (Rs. in Crore)
Medium	35	17	52	1020.00
Light Single Engine	08	02	10	24.00
Light Twin Engine	NIL	02	02	49.50
Heavy Duty	03	01	04	70.00
Seaplane	NIL	02	02	26.00
Total	46	22+2 (SP)	68+2 (SP)	1189.50

15.0 CONCLUSION

While there are around 35,000 Helicopters in operation worldwide, in India the share is even less than a meager 1% at just 267 helicopters, despite being the second most populous nation in the world witnessing a sharp economic growth. Keeping the Helicopter Industry in view and its growth potential through the XII Five Year Plan Period (2012-17), a roadmap has been proposed above wherein the number of civil helicopters in India are expected to increase from the present 267 to over 500 with significant contribution from Pawan Hans.

In order to retain market share and further strengthen our leadership position, Pawan Hans intends to take the following key initiatives:

- 15.1 Aircraft Services
- 15.2 Strengthen competitive position in existing markets.
- 15.3 Acquisition/Leasing of new fleet
- 15.4 Pursue Business in new areas like heli-tourism; assist Government in Law enforcement and Medical evacuation through financial support by GBS, hotline washing of power insulators, etc.
- 15.5 Setting up of MRO facilities: JV with HAL for maintenance of Dhruv, Cheetah and Chetak helicopters.
- 15.6 Setting up of Training & Skill Development Centre: development of Hadapsar Centre at Pune.
- 15.7 Establishing Heliports: Rohini Project at New Delhi.
- 15.8 Sea Plane and Small Fixed Wing Aircraft operations
- 15.9 Improvement of customer satisfaction.
- 15.10 Creation of Regional Heli-Hubs.

The proposed increase in fleet is to be mainly through Internal IEBR for Onshore and Offshore customers, GBS forming part of the XII Five Year Plan of Ministry of Civil Aviation and other Ministries such as Ministry of Home Affairs, Ministry of Tourism, National Disaster Management Authority and DONER/NEC or as leasing arrangements.

PHL has large outstanding dues from various State Governments, specially the North East States and other Government agencies which affect the cash flow position and impact the growth of the Company and the same needs to be actively taken up with respective parties along with other positive steps.

PAWAN HANS LIMITED

SECTION – D

IPO: THE WAY FORWARD

WE *fly* FOR YOU



Being a national Helicopter carrier, Pawan Hans has also social responsibilities and to fulfil this, Pawan Hans is making its best efforts to provide comfortable, reliable and safe mode of transport by Helicopter at an affordable price. Well known for its brand message – '**We fly for you**' PHL initiatives enabling common man to travel by Helicopter. The company is today know for '*Affordable Superior Service- Anywhere, Anytime & Anyway*'.



पवन हंस लिमिटेड
Pawan Hans Limited
(A Government of India Enterprise)

CHAPTER-I :: IPO – WAY FORWARD

1.1 Pawan Hans's Expansion Plans

Pawan Hans Helicopters Ltd. (Pawan Hans), a public sector undertaking, is India's leading helicopter company engaged in providing helicopter services for various purposes such as offshore operations, inter island transportation, connecting inaccessible areas etc. Pawan Hans has a mixed fleet of 46 helicopters and accounts for about 40% of the entire helicopter business in India.

The Company embarked on an expansion plan in the year 2009-10 and has acquired a fleet of around 13 helicopters since then i.e. 3 AS-350B3 and 10 Dauphin N3 helicopters with additional 2 Mi-172 helicopters and delivered in June 2012. Keeping in view the growth potential of the helicopter industry, Ministry of Civil Aviation (MoCA) has proposed a roadmap wherein the number of civil helicopters is expected to increase from the present 267 to over 500 during the next five years. Pawan Hans being a major player in the industry is expected to contribute to the overall growth of the helicopter industry and plans to acquire 22 helicopters including disposal of 18 nos. of existing old Dauphin N helicopters in a phased manner on account of completion of their useful economic life. Out of the 18 helicopters, 9 are proposed to be disposed at the end of 12th five year plan i.e. FY 2012-17 and balance 9 are proposed to be disposed at the end of FY 2022.

The expansion plan of the Company entails a capital expenditure of Rs. 1,189.50 crore. The Company proposes to contribute equity from its internal accruals and tie up the debt from various banks.

However, there is a claim of Rs. 470.22 Crore by Government of India (GoI) on Pawan Hans. This claim is being carried in the balance sheet of the company as a current liability and may impact the overall growth/expansion plans of the company.

1.2 Background to the GoI Claims

Pawan Hans was set up as a public sector undertaking under Ministry of Civil Aviation (MoCA) to provide helicopter services for the exploration activities of ONGC and to the North East Region. The initial fleet of Pawan Hans comprising 42 helicopters (21 Westland and 21 Dauphin helicopters) was imported under the British Overseas Development Administration (ODA) grant and Indo-French

Economic Protocol during the period 1986 and 1988 at a project cost of Rs. 250.90 crores.

In June 1986, Ministry of Finance (MoF) decided that the entire project, cost (Rs.250.90 crores) be advanced to the company as equity capital. However, Pawan Hans had received equity contribution of only Rs. 113.76 crores leaving a gap of Rs. 137.14 crores against the project cost. This gap was met by release of payments (Rs. 130.91 crore) authorized by MoF to the helicopter manufacturers (Westland Helicopters Limited, UK and Aerospatiale, France) on behalf of Pawan Hans through the grants under the above mentioned agreements and internal accruals of Pawan Hans (Rs. 6.23 crore).

The foreign currency payments (Rs. 130.91 crore) released by MoF, were to be repaid back by Pawan Hans through rupee equivalent deposit with the Government Treasury as required under Rule 237 (ii) of GFR. Adequate additional equity was not infused, resulting in the payment released by MoF of Rs. 130.91 crore reflecting as an outstanding claim of MoF on the company's books. Pending settlement of claims by the company, MoF charged interest at the rate of 18% p.a. MoF has been claiming an amount totalling Rs. 470.22 crores including interest @ 18% p.a. up to March 31, 2001 on outstanding amount of Rs. 130.91 crores.

It may be mentioned that based on the directives of Cabinet Committee on Economic Affairs (CCEA), Pawan Hans did not even incorporate any interest cost in its charter rates and has not recovered the same from the customers since inception. Moreover, based on Gol instructions Westland Helicopters were permanently grounded in 1991 and sale proceeds were also deposited with the Government under Poverty Alleviation Scheme.

Pawan Hans is a significant player in the market with large untapped potential, which requires considerable amount of capital infusion for its fleet expansion and other essential capital programmes that could assist the company in staying competitive and in enhancing its market share. Pawan Hans is contemplating a public issue in future and the issues relating to Gol claims needs to be addressed to arrive at an equitable solution for all the parties concerned.

1.3 **Methodology**

In the light of above background, Pawan Hans has appointed SBI Capital Markets Ltd. (SBICAP) as a consultant for assessing the impact of Gol claims on the growth/expansion plans and valuation of the company.

The methodology adopted for the study aims to discuss the various options available to the Company for settlement of Gol claims and further assess their impact on cash flow, equity valuation of the Company along with consequential benefits to the Gol. The DCF (Discounted Cash Flow) technique has been adopted as the primary method for valuation of company under the different business scenarios considering Pawan Hans as a going concern. Future net cash flows have been estimated based on the proposed expansion plans of the company.

The EBIDTA margins are projected to decrease from present 33% to around 20% gradually over the years. If the company is not able to increase its EBIDTA margins, it may not be in a position to meet its borrowing and other costs related to its expansion plans, thereby, affecting its profitability significantly. The cut off date for settlement of Gol claims has been assumed as April 1, 2013 i.e. FY 2014 and that for valuation has been assumed as April 1, 2014 i.e. FY 2015, unless mentioned otherwise.

Based on the assumptions, a base case financial plan has been prepared and valuation of the company has been carried out by discounting free cash flows to equity stakeholders (FCFE) at cost of equity of 15.5%. The base case assumes that a status quo is maintained on the issue of Gol claims and the company continues to keep the liability of Rs. 470.22 Crores on its books. Also, the base case assumes that the company disposes 9 Dauphin N helicopters out of the 18 helicopters completing their useful economic life of 30 years in 2016-17 at the end of 12th five year plan period and is able to deploy 9 helicopters for additional 5 years beyond their useful economic life of 30 years till FY 2022.

Further to the base case, a scenario has also been considered wherein it is assumed that the company would be able to deploy all the 18 Dauphin N helicopters (with an average deployment of 75%) completing their useful economic life of 30 years in 2016-17 for an additional 5 years and accordingly, the entire fleet of 18 helicopters would be disposed at the end of FY 2022.

1.4 **Settlement Options**

In order to arrive at an equitable solution, the following options emerge for settling the issues relating to Gol claims:

*a) Base Case: **Maintaining status quo on Gol claims***

Maintaining a status quo on Gol claims would reflect poor financial situation of the company, which would impact credit rating of the company, thereby, hampering its debt raising capability. Further, it would adversely affect the Company's prospects of launching an IPO which would scuttle its expansion plans.

*b) Option 1 — **One Time Settlement (OTS) of entire Gol claims out of Pawan Hans' resources***

In case the company is asked to settle Gol claims upfront, it will go bankrupt as it does not have adequate cash.

*c) Option 2 (a) — **Payment of entire Gol claims out of Pawan Hans' resources over a period of 10 years without considering the company's expansion plans***

In case the company does not go ahead with its expansion plans, then it would be left with a fleet of only 29 helicopters after disposing the existing 18 helicopters on account of completion of their useful economic life. With this fleet going out of service, the cash flows and debt serviceability of the company gets affected.

*d) Option 2 (b) - **Payment of entire Gol claims out of Pawan Hans' resources over a period of 10 years considering the company's expansion plans***

Even in the scenario of the company going ahead with its expansion plans and having to pay entire claims in 10 years, the cash flows and debt serviceability of the company gets affected as there is outflow of cash to meet the equity required for expansion plans coupled with cash outflow for payment of Gol claims.

e) **Option 3 — Waiver of entire Gol claims:**

In case of waiver of entire Gol claims, income tax liability of Rs. 53 crores arises as Pawan Hans had claimed income tax deduction on a certain portion of interest earlier, which was actually not paid to Gol. On account of this liability, the debt serviceability of the Company is just adequate in the year of settlement of this liability with other financial indicators reflecting a relatively healthy position of the company. Further, as the equity capital remains unchanged with Gol share of 51%, disinvestment may not be possible under this option.

f) **Option 4 — Conversion of entire Gol claims into equity:**

In case the Gal decides to convert the entire claim into equity, income tax liability of Rs. 53 crores would arise, due to which the debt serviceability of the Company is just adequate in the year of settlement of this liability. In this option the Gol stake in the company increases from present 51% to 83.19% and gives the Government an opportunity to unlock the value of the company through disinvesting its stake from 83.19% to 51% at a future date. If the Government dilutes its stake at par of fair equity value, it may fetch around Rs. 295 Crore for the Government. Under this option, Gol may be able to recover 62% of the amount claimed from the company. If the Gol is able to dilute its stake at premium, it may be able to recover more money as compared to the dilution of stake at par.

g) **Option 5 — Payment of interest to the extent already claimed by Pawan Hans/ allowed by IT department for tax deduction during past years (i.e. approx. 50% of total interest accrued) in 10 years starting FY 2015 and conversion of balance interest and principal into equity**

In this case, based on the tax advice provided by the tax consultant, the interest already claimed by Pawan Hans works out to Rs. 165.91 crore and the Company is not required to pay any income tax. Under this option, the financial indicators of the company reflect a healthy position ensuring adequate DSCR. The stake of the Government increases to 78.11% from present 51% and the Government may look at disinvesting its stake to 51%. If the stake is diluted at par of fair equity value, it may fetch Rs. 225 Crore for the Gol. Under this option, Gol may be able to recover 82% of the amount claimed from the company. If the Gol is able to dilute its stake at premium, it may be able to recover more money as compared to the dilution of stake at par.

Pawan Hans may undertake any proposal of conversion of GOI claims into equity and subsequent disinvestment of GOI stake.

All the options outlined above have been evaluated with respect of their impact on the expansion plans, valuation and debt serviceability of the company

1.5 Engagement of SBICAPS & Objective of the Study

In the light of above background, Pawan Hans appointed SBI Capital Markets Ltd. (SBICAP) for preparation of a Financial Advisory Report, which elucidates the impact of GOI claims on business plan and valuation of company along with various options for the consideration of GOI. Detailed analysis and various options that could be exercised by the Company.

SBICAP has been mandated to carry out the following broad scope of services:

- a) To review the business plan prepared by the Company
- b) To study the impact of payment of GOI claims on growth plans of the Company
- c) To study the impact of GOI claims on valuation of Pawan Hans under different scenarios.
- d) To come up with various options that could pave the way forward for Pawan Hans.

India is on its way to establishing itself as a regional hub in the next 10 years and an important global market, presenting opportunities not only for airlines, but also for aircraft component manufacturers, air cargo companies, helicopter service providers along with infrastructure developers. Given the size and the population of the country, air travel penetration is relatively low, providing an opportunity to sustain the growth rate witnessed in the aviation sector over the past few years.

MoCA has proposed a roadmap for the Helicopter Industry wherein the number of civil helicopters is expected to increase from present 267 to 500 and Pawan Hans being a major player is expected to contribute to the overall growth of the industry. Keeping in view the growth potential of the industry, Pawan Hans has prepared a business plan for the 12th Five Year Plan Period (2012- 17), which is discussed in the subsequent sections.

1.6 Pawan Hans Business Plan

Pawan Hans has prepared a business plan wherein it proposes to acquire 22 additional helicopters during the 12th five year plan period i.e. 2012-2017 to cater to the growing demand from its customers, with additional 2 Mi-172 helicopters delivered in June 2012. The company has prepared its business plan considering the following factors.

1. **Overall growth in demand from Customers:** Pawan Hans is a major player in providing offshore helicopter services and has been providing services to ONGC since 1986 for carrying out their production and crew change tasks. ONGC has indicated that it proposes to have 25 more offshore platforms in the next 5 years period and accordingly, the demand for helicopters is likely to increase. Further, the other off shore companies like British Gas, GSPC, Cairn Energy etc. also require helicopter services for their operations. In order to cater to the demand from its existing as well as prospective customers for their off shore operations, Pawan Hans proposes to acquire 7 medium helicopters. Also, the company proposes to acquire 7 additional helicopters under various categories (i.e. 2 light single engine, 2 light twin engine, 1 heavy and 2 sea planes) to meet the demand from its existing and new customers.
2. **Restrictions Imposed on account of existing Contracts:** The existing contracts with ONGC stipulate a vintage clause, whereby the helicopters deployed with ONGC for its production as well as crew change task are to have a vintage of 5 years. Accordingly, the helicopters having a service life of more than 5 years cannot be deployed with ONGC for it's off shore operations.

CHAPTER II :: PHL APPROACH TO IPO

2.1 : IPO

- (a) PHL falls under "non-core" sector since the Company operates in a competitive market in which the private sector also has a presence.
- (b) The Paid up equity capital of PHL is Rs. 245.62 crores. As per the present shareholding, GOI holds 51% (Rs.125.27 crores) and the balance 49% of equity is held by ONGC (Rs.120.35 crores). In terms of the Government policy, in all cases of disinvestment, the Government would retain at least 51% equity and the management control in a CPSE
- (c) PHL has an outstanding claim of Ministry of Finance (MoF) amounting to Rs. 470.22 crores (Principal amount Rs. 130.91 crores and accumulated interest upto 31st March, 2001 of Rs. 339.31 crores) in connection with the purchase of Westland Helicopters at the time of formation of Company in 1986. MoF has not agreed to the MoCA proposal for waiver of such dues claimed from PHL. However, it was proposed by MoF that the Principal amount of Loan of Rs. 130.91 crores may be converted into equity and PHL will be required to pay the accumulated interest of Rs.339.31 crores to the Government.
- (c) The matter regarding Offering equity to public was deliberated in the PHL Board during the 139th meeting held on 30-31 October, 2013 and 142nd meeting held on 21st May, 2014. ONGC was of the view that considering the disclosure requirements of IPO, the amount of Rs. 470.22 crores as outstanding loan and interest claimed by MoF may not make the IPO attractive and fetch handsome amount. Further, CMD, ONGC had agreed in principle for PHL to go for disinvestment and IPO by PHL. Board considered and approved the option that GOI may go for conversion of Rs. 130.91 crores into equity. Accordingly, GOI can retain 51% shareholding in PHL after such loan conversion and through issue of IPO of Rs.126 crores to the public. With ONGC retaining the present amount of Shareholding of Rs.120.35 crores, the post-issue shareholding pattern for the enhanced equity capital, after conversion of loan of Rs. 130.91 crores and IPO of Rs.126 crores, of Rs.502 crores would be GOI: 51%, ONGC: 24% and Public: 25%. As per SEBI requirements, the proposed IPO should

be at least 25% of the post issue capital where such capital is less than or equal to Rs. 1600 crores.

(d) To expedite the IPO process:

- Settlement of claim of MoF of Rs.470.22 crores on PHL.
- Restructure the PHL Board and appointment of Functional and Independent Directors as compliance to Corporate Governance requirement of SEBI.
- Approval of the Government through the Department of Disinvestment for the proposed IPO issue of Rs. 126 crores with dilution of the Government shareholding through public offer of at least 25% of the post issue capital as per SEBI requirements, subject to minimum of 51%.

(e) The IPO would provide PHL with an opportunity to induct a strategic partner and equip itself to meet the future challenges

(f) The objective of the subsequent section is to examine the possible approaches to IPO and identify the strategy which details the needs of the Company with the objectives of the Gol

2.2 **IPO Process**

(a) The Indian experience in IPO has been restricted to offloading small amounts of Gol's equity to financial investors. However, the process of inducting trade or strategic partner has not gathered momentum.

(b) IPO would involve radical change of shareholder profile, management style, corporate ethos and hence it requires comprehensive analysis and planning.

(c) IPO has been successfully completed in several PSUs. An analysis of some of these experiences suggests that the entire process can be broadly segmented into three phases namely:

- Preparatory Stage
- Implementation stage
- Post-implementation stage

d) **Preparatory Stage**

(i) Restructuring in one or more ways is expected to enhance future profitability and investor perception. Where restructuring involves administrative action without significant outlays and enhances share value, it could precede IPO; in cases that require considerable

restructuring, a cost-benefit analysis may have to precede the actual implementation.

(ii) Based on global experience, some of the areas where restructuring has been attempted are as under :

- Corporate, Organisation and Management Structure
- Strategic and Business Planning
- Marketing Strategy
- Pricing and Tariff Strategy
- Management of Human Resources
- Operations Management
- Management and Financial Reporting Systems
- Information Technology

The above are only indicative and not exhaustive

(iii) Some of the aforesaid, which would have relevance for PHL, are elucidated in more detail hereunder:

(iii.i) Corporate Governance :

Corporate Governance entails companies to take independent commercial decisions in their best interest. There is a need to balance autonomy with accountability. The most important step taken by successful IPO exercises prior to IPO is to give operational autonomy to PSU managers by distancing the government from the day-to-day operations and by delegating powers to the Board

PSU managements may be constrained in exercising their powers because of administrative controls and / or lack of adequate delegations of powers to the Board. Further the multi-level system of accountability has restricted the Boards from taking decisions in the interest of PSUs. PSU managements have to be professional and empowered to take key decisions relating to strategy and managing the day-to-day operations of the company

There may be a need to review the manner in which appointments are made to the Board, the composition of the Board and the executive directors in order to inject greater professionalism in its functioning. Additionally, the tenure of Board members should not be just term based. but in addition

should be linked to the individual's contribution to the Company.

There should be greater delegation of powers to the Board. This assumes importance, as companies increasingly need to respond swiftly with the fast changing nature of the markets in which they operate. Decisions such as incurring capital expenditure, entering into joint ventures, etc. should be left to the management. Further, PSUs should be given adequate autonomy for managing their units on a day-to-day basis

(iii.ii) Financial Restructuring:

This is linked to the concept of corporate governance in PSUs. As there is low accountability to the ultimate shareholders, the management does not have adequate incentive to perform, neither does non-performance pose any threat in terms of replacement, takeovers etc. In private organizations, errant management may be punished with the mechanism of takeovers while the creditors (term lenders) could seek managerial changes, in the event of potential or actual default. In many cases, social objectives and / or administered pricing policies of the GoI are translated into a ceiling on prices, hence even if the PSUs are able to achieve internal efficiencies; their capacity to earn profits is reduced.

Further financial restructuring is required in companies to reflect the true value of their balance sheet, which may require an assessment of their assets and their respective realistic market values or replacement values. This could also include ascertaining the hidden costs and contingent liabilities of the company. Other companies may need a capital restructuring which could involve stipulation of an optimal debt equity ratio to provide the company the benefits of leveraging

Accordingly, financial restructuring has been found essential not only for loss making PSUs but profitable PSUs as well

(iii.iii) Business and Technological Restructuring :

In the past, the decision to diversify into new areas of business for many PSUs has often not been governed by commercial considerations: Therefore, it is necessary to determine core competencies of each PSU and decide on the relative importance of each business. Business restructuring may involve hiving off businesses that are no longer attractive from the viewpoint of returns or are a drag on other profitable operations

Restructuring of business operations can be further extended to the marketing strategy of the company to improve the .business-prospects of the company. This helps in improving the profitability and hence the valuation of the company being disinvested. In addition, technological up gradation or restructuring maybe required either sustaining or improving the competitive position of PSUs

(iii.iv) Management of Human Resources :

The employees being one of the key stakeholders in the company need to be proactively associated with the programme to obtain their support. However, typically there is an inherent conflict in the process as certain amount of rationalization is largely found necessary to run a company. Hence management of human resources is critical to the success of the IPO programme

It is often found that organizations that are being disinvested from the public sector have surplus manpower. Accordingly prior to IPO, it is imperative to ascertain the optimum number of employees needed in the organization. More often than not, these exercises have proved beneficial to the organizations being disinvested as adequate steps can be implemented for manpower rationalization before the IPO of the enterprise. However, the schemes for affecting rationalization have to be transparent and perceived beneficial to the employees to ensure the success of the programme

(iv) Implementation Stage

The main dimensions of the implementation stage are Valuation of the PSU. Choosing appropriate IPO strategy so as to meet overall goals

(v) Valuation

The valuation of equity of a company is of primary importance to ensure that it reflects the intrinsic worth of a share. Valuation should be independent, transparent and free from bias

(vi) IPO Strategy: Global experiences with respect to the strategies of IPO include one or combinations of the following:

- Public offer
- Joint Venture
- Closed subscription
- Liquidation
- Concessions-
- Auctions
- Voucher / certificate based transfers

In the Indian context, however, based on past experience in the public and private sector, only the first three methods may be viable for transfer of equity stake

(vii) Modalities of IPO :

The modalities of IPO vary depending on the IPO strategy which has been finalised for a particular corporate. These include the following:

(viii.1) Selection & Role of Intermediaries: Appointment of

Merchant bankers and co-coordinators with adequate expertise and experience is a critical factor to ensure the success of the IPO programme. The final selection should be competitive and transparent

(viii.2) Pricing the Sale: The pricing of shares disinvested attracts considerable attention in case the shares are not found to be optimally priced. The distinction between equity valuation and pricing of the share needs to be highlighted. Valuation determined through an analytical study would form the basis for pricing. However, the realized price of 'a share depends on a large number of factors such as target group, issue size, method of sale and conditions of capital markets

(viii.3) Target Groups for Sale : The target group for sale of PSU shares could be the general public, financial investors, mutual funds, financial institutions, foreign institutional investors, strategic investors, and employees of PSUs. The choice and composition of a target group would depend on the size of the issue, the state of capital markets, the pricing of the issue, etc.

(f) Post Implementation Stage :

This relates to the issues of the acquirer(s) of the corporate post its IPO these would include matters such as corporate governance, free market, adequate exit options for transfer of stake in future, and economic and legal regulations. However these issues have not been elaborated upon in detail as it is presently too premature to do so.

(g) Pre-launch preparation and Due Diligence

(1) Key Activities relating to Pre-launch

- Business Plan with long term objectives need to be prepared by a Marketing Consultant who would need to align the growth plans with Investor expectation
- Decide on overall dilution level of Equity Capital with Minimum Net offer to Public of 25% of the post Issue Capital, with GOI retaining 51% with Government approval
- Restated audited Financial Statements for previous Five financial years as per Companies Act, 2013 and IFRS compliance
- Review of the Memorandum and Articles of Association to align with Stock exchange requirements and update Secretarial and Legal records. Appointment of a Compliance Officer.

- Reduction in the par value of each Equity Share from Rs. 10,000/= to Rs.10/= and increase in the Authorised Capital of the Company.

(2) Appointment of Intermediaries and Advisors:

- Book Running Lead Managers (**BRLM**), Auditors, Legal counsel, Registrar to the Issue, Depositories (NSDL/CDSL), Syndicate members, Escrow collection Banks, Domain experts, Research Analysts, IPO Grading Agency, Advertising & PR agency and Printers.
- Transaction Agreements with the Intermediaries and Advisors / Important documents like consent letters from prominent Customers and lenders/ Bankers.
- Seek Board and Shareholders' approval for the IPO and other Corporate actions. Constitute Board level IPO Committee.

(3) Due Diligence Process by BRLMs

- Types of Due Diligence: Commercial, Financial, Legal and Reputational
- Evaluation and Structuring of the transaction and identify legal and contractual impediments
- Confirm and verify Representations and warranties
- Validate Business Plan
- Risk management strategies

(4) Compliance to Clause 49 of the Listing Agreement: Corporate Governance

- In case the Company has an executive Chairman, at least 50% of the Board should comprise of Independent Directors, otherwise at least 1/3rd of the Board should comprise of Independent Directors. There shall be at least one woman director on the Board.
- Audit Committee: minimum three directors as members with 2/3rd members and Chairman are Independent directors.
- Formation of Shareholders/ Investors Grievance Committee and Remuneration Committee comprising of non-executive Directors.
- Formation of Risk Management Committee
- Code of Conduct for the Board of Directors and Senior Management
- Whistle Blower Policy

- Insider Trading Policy to prevent insider trading by employees of the listed Company.

(5) Preparation of Data Room

- All material contracts and material documents, due diligence certificates and other IPO related documents.

(6) Indicative Timelines of IPO Issue (after necessary Government approvals)

- Pre-launch preparation and due diligence: **5 weeks**
- Regulatory documentation, filing draft Red Herring Prospectus, SEBI approval, Marketing strategy, price feedback, etc.: **11 weeks** (assuming SEBI comments are received in 2 months).
- Marketing and Book Building: Road shows, price band announcement, final prospectus, Issue opens: **2 weeks**
- Closing: Closing/ Settlement, Listing on Stock Exchange, Final SEBI Reporting: **3 weeks**.

3.0 Conclusion:

The objectives and goals of IPO can be clearly established. However, the key success factors differ across countries and across sectors. There is no right way: the efficacy of the process can be gauged only from its ability to maximize the efficiency and benefits for all the stakeholders involved. Hence, the planning and management of the entire process is a critical factor for a successful IPO programme and PHL will engage an experience IPO manager / FI's for successful strategic implementation of IPO.

Ever-Ready *Footprints*



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