



MEMORANDUM OF UNDERSTANDING

For

2020-21

Between

**HINDUSTAN AERONAUTICS LIMITED
BENGALURU**

And

**DEPARTMENT OF DEFENCE PRODUCTION
MINISTRY OF DEFENCE
NEW DELHI**

MEMORANDUM OF UNDERSTANDING

HINDUSTAN AERONAUTICS LIMITED

2020-21

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BRIEF ABOUT THE CPSE

1	Name of the CPSE	Hindustan Aeronautics Limited
2	Status : As per DPE Guidelines	Maharatna / Navratna ✓ / Miniratna/Others
3	Schedule of CPSE (Please Tick)	A ✓ / B / C / D / None
4	Purpose for which CPSE has been setup and main business now	<p>"Hindustan Aeronautics Limited" (HAL) has been setup to meet the requirement of Indian Defence Forces (Namely Indian Air force, Indian Navy, Indian Army and Coast Guard) in the area of Aerospace.</p> <p>HAL, a Navratna Central Public Sector Undertaking of the Government of India, is a premier Aerospace Company of South East Asia, with 20 production and overhaul / service Divisions and 11 co-located R&D centres across India. The Company is ranked 36th among the top global Aerospace Companies. HAL's spectrum of expertise encompasses design and development, manufacture, upgrade and repair / overhaul of aircraft (fighters, trainers and transport), Helicopters and associated Aero-engines, Accessories and Avionics for both military and civil applications.</p> <p>HAL has diversified portfolios like manufacture of Structures for Aerospace Launch Vehicles / Satellites and Cryogenic Engines. HAL is also involved in the production and overhaul of Marine & Industrial Gas Turbine Engines.</p> <p>HAL has emerged as a globally competitive Aerospace company, with supplies of major structural assembly packages and large volumes of machined components to leading international aerospace companies like Airbus and Boeing.</p>
5	Any capital restructuring during 2017-18, 2018-19 & 2019-20 i.e buy-back of shares, issue of bonus shares, issue of fresh shares, splitting of shares and % of PAT given as dividend.	<p>During 2017-18, the Company bought back 2,71,12,500 equity shares of Rs 10/- each from the president of India at an offer price of Rs 339.88 per share and paid total buy back consideration of Rs 92,150 Lakhs excluding buy back tax of Rs 20,636 Lakhs on 19th December 2017.</p> <p>Capital restructuring during the years 2018-19 and 2019-20 is Nil.</p>
6	Whether shares are listed (if yes, name of stock Exchange and price of the share as on date)	<p>National Stock Exchange of India and BSE Limited</p> <p>Price of share as on 31st March 2020 is</p> <p>Rs 520.30 per share – at NSE of India</p> <p>Rs 532.95 per share – at BSE Limited</p>

7	Any change in Capacity during the year or Next Year (MoU Year)	NIL
8	Any Business unit hived off or to be hived off or added or to be added during the year or next year (MoU Year)	NIL
9	Brief about the Sector in which the CPSE is operating and National and International environment, regulatory environment etc.	Refer Appendix – A
10	Details of revival plan if approved	Not Applicable
11	Any adverse comment by Statutory Auditors and its impact on Revenue / Profit / Loss / Assets / Liabilities.	NIL
12	Whether C & AG supplemented the comments of Statutory Auditor. If not give details along with impact.	NIL
13	Number and Name of the subsidiary companies along with amount invested and share in its profit during last 5 years	Refer Appendix – B
14	Number and Name of the Joint Venture companies along with amount invested and share in its profit during last 5 years.	Refer Appendix – C

MANDATORY PARAMETERS**PART-A**

Sl. No.	Financial Performance Criteria	Unit	Marks	2019-20 (Estimated)	Best in 5 years	MOU Target					% improvement
						Excellent	Very Good	Good	Fair	Poor	
1	Turnover										
	Revenue from Operations (Net of Taxes)	Rs Crs	10	21522	19894	21500	20500	19500	18500	17500	-4.75
2	Operating Profit / Loss										
	Operating Profit as % of Revenue from Operations	%	20	16.49	16.35	16.50	15.75	14.85	14.00	13.25	-4.49
3	Return on Investment										
	PAT as a % of Average Net Worth	%	20	21.82	22.11	22.00	18.00	17.00	16.00	15.00	-17.51
	TOTAL (A)		50								

Disclaimer : The information is price sensitive. Hence, should not be made public before the same is reported by the Company to stock exchanges.

OTHER PARAMETERS

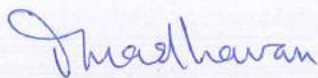
PART-B

Sl. No.	Performance Criteria	Unit	Marks	2019-20 (Estimated)	Best in 5 years	MOU Target					% improvement
						Excellent	Very Good	Good	Fair	Poor	
4	Export as percentage of Revenue from Operations (Net)										
	Export as a % of Revenue from Operations(Net)	%	3	0.85	3.12	3.0	1.5	0.9	0.75	0.65	76.47
5	Completion of milestone of clients orders / agreements without time overrun (Manadatory)										
	Completion of Milestones of clients orders / agreements without time overrun (As per list at Appendix –D)	%	6	-	-	100	95	90	85	80	-
6	R&D , Innovation, Technology up-gradation parameter										
	Artificial Intelligence (AI) enabled projects - Automatic Target Recognition - Hardware-Software Integration and testing of Convolution Neural Network Model for Automatic Target Recognition on GPU based Embedded Hardware and validated by Independent Agency.	Date	2	-	-	28.02.21	07.03.21	15.03.21	21.03.21	31.03.21	-
7	CAPEX										
	CAPEX	Rs Crs	15	1509	1514	1040	980	930	880	830	-35.06

Sl. No.	Performance Criteria	Unit	Marks	2019-20 (Estimated)	Best in 5 years	MOU Target					% improvement
						Excellent	Very Good	Good	Fair	Poor	
8	Capex Monitoring										
	Percentage of value of CAPEX contracts / projects running / completed during the year without time / cost overrun to total value of CAPEX contracts running / completed during the year	%	5	100	100	100	95	90	85	80	-
9	Trade receivables (net) as number of days of Revenue from Operations (Gross)										
	Trade Receivables (Net) as number of Days of Revenue from Operations (Gross)	No. of Days	5	195	83	90	100	120	140	160	48.72
10	Reduction in Overall Claims against the Company not acknowledged as debt										
	Reduction in Claims against the Company not acknowledged as debt over previous year on overall basis	%	3	15	12.76	20	18	16	14	12	20.0
11	Percentage of Procurement of goods and services through GeM portal to total procurement of goods and services during the previous year i.e FY 2019-20	%	5	-	-	25	20	15	10	5	-

Sl. No.	Performance Criteria	Unit	Marks	2019-20 (Estimated)	Best in 5 years	MOU Target					% improvement
						Excellent	Very Good	Good	Fair	Poor	
12	Reduction in imports consumption as a percentage of Revenue from Operations over previous year	%	3	-	-	6	5	4	3	2	-
13	Parameter on Asset Monetization										
a	Preparation of assets monetization plan (AMP)	Date	1	-	-	15.11.20	22.11.20	28.11.20	05.12.20	12.12.20	-
b	Approval of assets monetization plan from DIPAM	Date	1	-	-	01.01.21	07.01.21	14.01.21	21.01.21	28.01.21	-
c	Achievement of milestone approved for the year 2020-21 by DIPAM in Approved assets monetization plan	Date	1	-	-	31.03.21					
Total (B)			50								
Grand Total (A+B)			100								

1. In working out achievements for the year, quantified qualifications of CAG/Statutory Auditors would be adjusted in case of overstatement of Revenue / Profit / Surplus or understatement of Loss / Deficit in addition to Negative marks prescribed in MoU guidelines.
2. Adjustments would be made in the targets in case of improvement in actual performance over the estimated performance in the base year (2019-20) as per MoU Guidelines.
3. The targets decided in MoU are unconditional and no offset will be allowed on any ground. Further evaluation would be subject to compliance of additional eligibility criteria as contained in MoU guidelines.



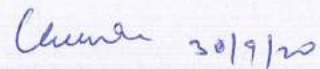
(R. Madhavan)

Chairman & Managing Director
Hindustan Aeronautics Limited,
15/1, Cubbon Road,

BENGALURU - 560 001

Station: New Delhi

Date 30-9-2020



(Raj Kumar)

Secretary, Government of India
Department of Defence Production
Ministry of Defence

NEW DELHI - 110 011

PART- A
TREND ANALYSIS

Sl. No.	Financial Performance Criteria	Unit	Target V/s Actual	14-15	15-16	16-17	17-18	18-19	19-20 (Prov.)
1	Revenue from Operations – Gross	Rs. Crs		15731	17159	18554	18624	19894	21522
	Revenue from Operations – Net		Actual	15730	16758	17950	18519	19894	21522
			MoU	15509	16663	17100	17900	18400	20000
2	a. Profit Before Tax	Rs. Crs		3173	3207	3583	3240	3628	3960
	b. Other Income			1642	1598	1044	761	376	293
	c. Extraordinary & Exceptional Items								119
	d. Prior Period Items								
	e. Operating Profit (a-b+/-c+/-d)	Rs. Crs	Actual	1531	1609	2539	2479	3252	3548
			MoU	Not a MoU Parameter					
	f. Operating Profit as a % Revenue from Operations (net)	%	Actual	9.73	9.60	14.14	13.39	16.35	16.49
		MoU	Not a MoU Parameter		10.30	10.60	11.60	15.00	
3	a. PAT	Rs. Crs		2388	1998	2616	1987	2282	2857
	b. Net worth at year end (Excluding OCI Reserve)			14959	11077	12589	9689	11110	15080
	c. Average Net Worth (Excluding OCI Reserve)			14987	13018	11833	11139	10400	13095
	d. PAT/Net Worth (Excluding OCI Reserve)	%	Actual	15.97	18.03	20.78	20.51	20.54	18.95
			MoU	Not a MoU Parameter		11.50	Not a MOU parameter		
	e. PAT/ Average Net Worth (Excluding OCI Reserve)	%	Actual	15.94	12.77	22.10	17.84	21.94	21.82
		MoU	Not a MoU Parameter			14.05	15.25	15.00	

Sl. No.	Financial Performance Criteria	Unit	Target V/s Actual	14-15	15-16	16-17	17-18	18-19	19-20 (Prov.)
	f. Paid-up Share Capital	Rs. Crs		482.0	361.5	361.5	334.0	334.0	334.0
	g. GoI Share	Rs. Crs		482.0	361.5	361.5	300.85	300.85	300.85
	Other than GOI Share	Rs. Crs					33.54	33.54	33.54
	h. Reserves and Surplus	Rs. Crs		14412	10657	12175	9151	10514	12881
4	Total Expenses	Rs. Crs		14199	15150	15411	16041	16643	17974
5	Total Incomes			15730	16758	17950	18519	19894	21522
6	Total Expenses / Total Incomes	%		90.27	90.40	85.86	86.62	83.66	83.51
7	Details of other Income								
	a. Interest	Rs.Crs		1620	1549	890	639	259	64
	b. Dividend			2	2	3	1	2	2
	c. Other Incomes			20	47	151	121	115	227
	d. Total			1642	1598	1044	761	376	293
8	a. Cash and Bank Balance and equivalent	Rs Crs		17671	13299	11117	6524	112	298
	b. Investment in mutual funds								
	c. Investments in shares other than subsidiary / JVs								
	d. Total (a+b+c)			17671	13299	11117	6524	112	298
	e. Cash Credit / Over-draft loan / Short-term loan/Long-term loan					950	864	4158	5775
	f. Balance in current account			471	334	334	91	11	278
9	Dividend paid / declared for the year, excluding Dividend Tax	Rs Crs		480	627	800	1076	662	1112

PART B
TREND ANALYSIS

Sl. No.	Performance Criteria	Unit	Target V/s Actual	14-15	15-16	16-17	17-18	18-19	19-20 (Prov)
1	Export as a % of Revenue from Operations (net)	%	Actual	3.12	2.66	2.59	1.70	2.08	0.85
			MoU	Not a MoU Parameter					
2	Completion of milestones of clients orders / agreements without time overrun	%	Actual	Not Applicable					
			MoU						
3	R&D , Innovation, Technology up-gradation parameter								
	Artificial Intelligence (AI) enabled projects - Automatic Target Recognition - Hardware-Software Integration and testing of Convolution Neural Network Model for Automatic Target Recognition on GPU based Embedded Hardware and validated by Independent group.	Date	Actual	Not Applicable					
			MoU						
4	CAPEX	Rs Crs	Actual	874	1430	1514	1452	1510	1509
			MoU	Not a MoU Parameter	1310	900	1300	1375	1400
5	CAPEX contracts / projects running / completed without time / cost overrun to total value of CAPEX	%	Actual	Not a MoU Parameter		100	100	100	100
			MoU			100	100	100	100

Sl. No.	Performance Criteria	Unit	Target V/s Actual	14-15	15-16	16-17	17-18	18-19	19-20 (Prov)
6	Trade Receivables (Net) as number of Days of Revenue from Operations (Gross)	No. of Days	Actual	142	103	83	132	257	195
			MoU	Not a MoU Parameter		117	110	110	220
7	Reduction in claims against the Company not acknowledged as debt over previous year on overall basis	%	Actual	-10.67	-84.90	0.91	-22.03	12.76	15.00
			MoU	Not a MoU Parameter				3.00	15.00
8	Percentage of Procurement of goods and services through GeM portal to total procurement of goods and services during the previous year i.e FY 2019-20	%	Actual	-	-	-	-	-	-
			MoU	-	-	-	-	-	-
9	Reduction in imports consumption as a percentage of Revenue from Operations over previous year	%	Actual	-	-	-	-	-	-
			MoU	-	-	-	-	-	-
10	Parameters on Asset Monetization								
a	Preparation of assets monetization plan (AMP)	Date	Actual	-	-	-	-	-	-
			MoU	-	-	-	-	-	-
b	Approval of assets monetization plan from DIPAM	Date	Actual	-	-	-	-	-	-
			MoU	-	-	-	-	-	-
c	Achievement of milestone approved for the year 2020-21 by DIPAM in Approved assets monetization plan	Date	Actual	-	-	-	-	-	-
			MoU	-	-	-	-	-	-

Brief about the Sector in which the CPSE is operating and national and International Environment, regulatory environment, etc.

Hindustan Aeronautics Limited (HAL) is a CPSE operating in the Aerospace & Defence (A&D) Industry. Aerospace & Defence is a fast growing industry, globally, however the growth has a strong dependence on national policy frameworks. Presently, the driving factors for the growth of the industry are a fast growing civil aviation industry strengthened by the strong passenger demand and enhanced military expenditures by global powers due to geo-political tensions. The top 100 A&D companies (by revenue) recorded \$760 billion in revenue in 2018, an increase of 9% over 2017. HAL holds 36th position among the top global aerospace companies in year 2018.

National and International Environment in the A&D Segment:

Global A&D Industry Environment: The Aerospace Industry is a conglomeration of various contributing industries such as Civil Aircraft Manufacturing, Civil MRO, Military Aircraft Manufacturing, Military MRO, UAVs and Space Programs. Presently, all contributing industries are on the growth trajectory resulting in robust growth of the industry, globally.

According to Deloitte's report, '2019 Global Aerospace and Defence Industry Outlook' one of the significant factors contributing to growth of the industry is continuous surge in the military expenditure in the last decade by the global military powers. The key drivers for the surge in global military expenditure are:

- Increase in military expenditure by USA in recent years, which alone contributes 35 percent to the global military expenditure.
- Countries like India, china and Japan have increased military expenditure due to rising geopolitical tensions.
- In addition to the traditional warfare on land, air and sea, the threat of cyber and space war has led the counties to increase their military expenditure.
- The promisingly growing global aviation industry has posed pressure on commercial aircraft manufacturers to ramp up the productions.

Indian A&D Industry Environment: At par with global industry environment, Indian Aerospace Industry is also reporting promising growth fueled mainly by the growing civil aviation segment. Coming to the defence industry in the country, the growth has a dependence on defence budget allocations. The 2019-20 allocations and the forecasts projected for the subsequent years are not really promising for large scale capital acquisitions though a slew of modernization plans for the armed forces are in the pipeline. In the Budget 2019-20, the fund allocation for defence expenditure, including both revenue and capital expenditure stands at Rs 3,05,296 crore, which is close to 6 percent increase over the previous year actuals. As per the views expressed by certain defence analysts "the defence establishment is unlikely to see a major growth in its budget in the near-to medium-term. The Medium Term Fiscal Policy cum Fiscal Policy Strategy Statement, presented along with the Union budget, forecasts the revenue expenditure of the defence services to grow by 10 per cent per year for the next two years. Though there is no specific forecast for the capital expenditure of the defence services, it is unlikely to see a major jump, considering the limited space available in view of the government's focus on massive spending on infrastructure development. The MoD and the wider defence establishment would have to perforce learn to live with the limited

growth in defence spending at least till 2021-22". This can have an impact on companies like HAL who are largely dependent on Defence customers.

The Aerospace Industry has always been capital-intensive with high technological requirements and long gestation periods. Other than this the industry has supply chain related challenges also. Though, the industry has developed a lot, it is still evolving to overcome the traditional challenges of costly raw material, unavailability of skilled labour, technological requirements and procuring from multiple suppliers. Government has brought in major initiatives such as Defence Industry Corridors and Special Economic Zones (SEZ) to support the industrial ecosystem. This would help micro, small and medium enterprises (MSMEs) that supply components and sub-assemblies to large manufacturers. The long gestation period and capital intensity often create entry barriers for MSMEs in this sector. SEZ would make it easy for companies to have access to talent and create synergies on logistics.

Regulatory Environment

In the recent years significant policy reforms have been brought out in our country to develop and strengthen the Aerospace Industry. The Foreign Direct Investment (FDI) policy has been revamped to attract the foreign investment in the industry, the Offset regulations have been amended, and Strategic Partnership (SP) Model has been brought in DPP-2016, which enables Indian Private Companies to tie up with foreign OEMs to bid for the defence orders in the country. The focus is also on SMEs and MSMEs for capability and capacity build up to develop robust tier-1/tier-2 ecosystem in our country to support fast growing Aerospace Industry.

HAL SUBSIDIARY COMPANIES - AMOUNT INVESTED & SHARE IN PROFIT

(Figures in Rs Crs)

Sl. No.	Name of Subsidiary	HAL Share holding (%)	2016-17			2017-18			2018-19		
			HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT
1	Naini Aerospace Limited	100	30.00	-1.74	-1.74	30.00	-10.63	-10.63	50.00	-12.95	-12.95
2	Indo Russian Helicopter Limited	50.5	-	-	-	5.05	-0.45	-0.23	5.05	-0.50	-0.25
	Total		30.00	-1.74	-1.74	35.05	-11.08	-10.86	55.05	-13.45	-13.20

Appendix - C

HAL JOINT VENTURE COMPANIES - AMOUNT INVESTED & SHARE IN PROFIT

(Figures in Rs Crs)

Sl. No.	Name of JVC	HAL Share holding (%)	2014-15			2015-16			2016-17			2017-18			2018-19		
			HAL Investm ents	PAT	HAL Share in PAT	HAL Investm ents	PAT	HAL Share in PAT	HAL Investm ents	PAT	HAL Share in PAT	HAL Investm ents	PAT	HAL Share in PAT	HAL Investm ents	PAT	HAL Share in PAT
1	BAE HAL Software Ltd	49	2.94	1.52	0.74	2.94	-2.13	-1.04	2.94	0.52	0.25	2.94	-3.66	-1.79	2.94	-0.77	-0.38
2	Indo Russian Aviation Ltd	48	0.94	19.50	9.36	0.94	17.04	8.18	0.94	20.11	9.65	0.94	18.51	8.88	0.94	14.74	7.08
3	Safran HAL Aircraft Engines Pvt. Ltd	50	11.40	7.67	3.84	11.40	7.74	3.87	11.40	2.73	1.37	11.40	5.16	2.58	11.40	8.09	4.05
4	Samtel HAL Display Systems Ltd.	40	1.60	-2.00	-0.80	1.60	0.06	0.02	1.60	-3.84	-1.54	1.60	-1.33	-0.53	1.60	-2.31	-0.92
5	HAL Edgewood Technologies Pvt. Ltd.	50	3.00	-1.58	-0.79	3.00	-1.18	-0.59	3.00	-0.80	-0.40	3.00	1.64	0.82	3.00	-0.21	-0.11
6	HALBIT Avionics Pvt. Ltd.	50	3.83	0.64	0.32	3.83	-6.34	-3.17	3.83	0.02	0.01	3.83	-0.05	-0.03	3.83	-9.20	-4.60
7	Infotech HAL Ltd.	50	2.00	0.66	0.33	2.00	0.99	0.50	2.00	1.02	0.51	2.00	0.78	0.39	2.00	0.90	0.45
8	HATSOFF Helicopter Training Pvt Ltd.	50	38.40	-11.1	-5.54	38.40	-7.91	-3.96	38.40	10.46	5.23	38.40	9.25	4.63	38.40	-7.74	-3.87

Sl. No.	Name of JVC	HAL Share holding (%)	2014-15			2015-16			2016-17			2017-18			2018-19		
			HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT	HAL Investments	PAT	HAL Share in PAT
9	TATA –HAL Technologies Ltd.	50	5.07	1.38	0.69	5.07	0.32	0.16	5.07	-2.93	-1.47	5.07	-1.43	-0.72	5.07	0.26	0.13
10	International Aerospace Manufacturing Pvt. Ltd.	50	42.50	3.72	1.86	42.50	5.28	2.64	42.50	16.37	8.19	42.50	2.31	1.16	42.50	2.10	1.05
11	Multirole Transport Aircraft Ltd.	50	113.47	1.80	0.90	113.47	2.40	1.20	113.47	-0.13	-0.07	113.47	-3.92	-1.96	113.47	-10.73	-5.37
12	Aerospace & Aviation Sector Council	50	0.13	-0.86	-0.43	0.13	-0.14	-0.07	0.13	-0.68	-0.34	0.13	-	-	0.13		
13	Helicopter MRO Engines Pvt LTD	50							1.95	-1.20	-0.60	4.10	-1.36	-0.68	4.10	-2.71	-1.36
14	Defence Innovation Organisation														0.01		
Sub Total			225.28	21.37	10.48	225.28	16.13	7.74	227.23	41.65	20.80	229.38	25.90	12.75	229.39	-7.58	-3.85
Diminution			49.9			64.62			65.84			128.77			131.52		
Total			175.38	21.37	10.48	160.66	16.13	7.74	161.39	41.65	20.80	100.61	25.90	12.75	97.87	-7.58	-3.85

Appendix-D

SL No	Milestone of Major Projects	Project / Order Completion Date	Project / Order Total Value (Rs Crs)	Project / Order Milestone dates for FY 20-21
1	ALH MK IV - WSI – Army (18 H/C Manufacturing)	29.08.2022	3014.93	8 Helicopters by 31.03.21
2	ALH for Coast Guard MK-III (16 H/C Manufacturing)	29.09.2021	5126.39	7 Helicopters by 29.03.21
3	ALH for Navy MK-III (16 H/C Manufacturing)	29.09.2021	2924.90	7 Helicopters by 29.03.21
4	Dornier Do-228 for Indian Navy (12 A/C Manufacturing)	29.12.2021	2124.00	4 Aircrafts by 29.12.20