

*Performance Audit on 'Design, Development, Manufacture and Induction of Light Combat Aircraft'*

**ANNEXURE-I**  
**(Refer Para 1.4)**

**Financial progress of the LCA programme**

(₹ in crore)

Period	Brief Description of the Activity	Date of sanction	Sanctioned cost - FE within bracket			Actual expenditure (Jan 2015) ₹
			Original ₹	Revised ₹	Total ₹	
1983 – 1994	Sanction for LCA Programme	August 1983	560.00	-	2188.00 (873.00)	2188.00 (815.00)
1993-2004	Full Scale Engineering Development (FSED) –I	June 1993	2188.00 (873.00) (Including 560.00 crore sanctioned in August 1983)			
2000-in progress	Interim FSED Phase-II	February 2000	666.34 (349.71)		5777.56 (2108.41)	5302.24 (1468.54)
	FSED Phase-II	November 2001	3301.78 (1526.49) (Including 666.34 crore sanctioned in February 2000)			
		November 2009				
2009-2018	FSED Phase-III	November 2009	2431.55 (818.60)	-	2431.55 (818.60)	804.15 (484.64)
	Total		7921.33 (3218.09)	2475.78 (581.92)	10397.11 (3800.01)	8294.39 (2768.18)

**ANNEXURE-II**  
**(Refer Para 3.1)**

**Details of development of indigenous capability**

<b>SI No</b>	<b>Description</b>	<b>Indigenisation level projected</b>
1	Aerodynamic design	Complete
2	System Architecture	Complete
3	Structural Design	Complete
4	Manufacture of structure	95 <i>per cent</i> indigenous
5	General Systems	85 <i>per cent</i> indigenous Import–heat exchangers, pumps, sensors
6	Metallic materials	80 <i>per cent</i> indigenous
7	Engines	Import – as interim solution
8	Avionics equipment	80 <i>per cent</i> indigenous Import – Multi Functional Displays, Electrical Generators, RLG, Electronic components
9	Software	Complete
10	Flight Control System	40 <i>per cent</i> indigenous Import – Actuators, sensors
11	Radar	Indigenous Import – Electronic components
12	Aircraft integration	Complete
13	Ground test rigs	Complete
14	Flight testing	Complete
Total Indigenous content		61 percent
Total Import content		39 <i>per cent</i>

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**ANNEXURE-III  
(Refer Para 4.2.2)**

**Statement showing aircraft details of flights undertaken, average number of flights achieved and number of days for which the aircraft were not flown for conducting flight tests**

Sl. No.	LCA reference	Date of first flight	Date of last flight	Number of Sorties	Average Sortie Per month	Cumulative hours flown (in hours)	Flight duration (in minutes)			From first flight to IOC	Aircraft not flown	Aircraft flown for tests
							Mini mum	Maxi mum	Average per sortie			
1	TD 1	04.01.2001	11.12.2007	233	3	133.58	6	78	34	2532	2305	227
2	TD 2	06.06.2002	14.05.2009	305	4	152.24	6	68	30	2533	2242	291
3	PV 1	25.11.2003	18.01.2010	242	3	161.33	8	112	40	2245	2015	230
4	PV 2	01.12.2005	26.04.2012	222	3	123.23	6	102	33	2338	2132	206
5	PV 3	01.12.2006	19.12.2013	381	5	226.01	6	105	36	2575	2231	344
6	PV 5 (Trainer)	26.11.2009	20.04.2011	36	2	21.42	12	50	36	510	475	35
	<b>Total</b>			<b>1419</b>		<b>817.81</b>				<b>12733</b>	<b>11400</b>	<b>1333</b>
7	LSP 1	25.4.2007	21.4.2012	74	1	40.10	6	103	33	1823	1750	73
8	LSP 2	16.6.2008	7.12.2013	289	3	185.43	5	108	39	2000	1730	270
9	LSP 3	23.4.2010	20.12.2013	183	2	142.06	12	102	47	1337	1166	171
10	LSP 4	2.6.2010	23.11.2013	95	1	77.22	8	91	48	1270	1178	92
11	LSP 5	19.11.2010	20.12.2013	242	3	186.31	8	102	46	1127	907	220
12	LSP 7	9.3.2012	15.12.2013	77	1	59.54	16	102	47	646	576	70
13	LSP 8	31.3.2013	20.11.2013	62	1	52.33	14	100	51	234	184	50
	<b>Total</b>			<b>1022</b>		<b>742.99</b>				<b>8437</b>	<b>7491</b>	<b>946</b>
	<b>Grand Total</b>			<b>2441</b>		<b>1560.80</b>				<b>21170</b>	<b>18891</b>	<b>2279</b>