

Government of India
Ministry of Communications

Report of the
Air Transport Inquiry Committee
1950

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the periodicity of air-frame overhaul. The Committee suggests, however, that unless and until such changes assume sufficient magnitude, say, such as would change the overall total by $2\frac{1}{2}$ per cent., minor adjustments of standard cost totals should not be contemplated. The Committee feels it desirable that the Industry should have a fixed target of expenditure at which to aim and that such target having once been determined, as has been done by the Committee, it should, as far as possible, remain stable for a period long enough to provide a reasonable opportunity of measuring the ability of various sections of the Industry to achieve working results within the set limit. (PARAGRAPHS 173—176).

(86) The Committee's standard cost figures do not include any allowance for profit. In other words, if passenger fares, freight rates and mail rates were worked out so as to produce at an assumed reasonable load factor an income per mile equal to the cost arrived at in the charts, an operator would just break even on his overall results. (PARAGRAPH 178).

(87) Typical results drawn from the standard cost charts relating to the types of aircraft now in service on the internal routes when operated on typical stage lengths have been tabulated. For comparative purposes, a uniform load factor of 65 per cent. has been assumed. (PARAGRAPH 179).

(88) If load factors of, say, 75 per cent. or higher are consistently maintained on a particular route, it is a clear indication that a proportion of the flights are actually departing completely full and that in all probability traffic is being turned away on those sections. When this state of affairs is reached, the only way in which additional traffic can be catered for is by providing additional frequencies of schedules. Operation of an additional frequency lowers the average load factor at least temporarily well below 65 per cent., although if the operator's judgment is proved correct it will be gradually built up again to a remunerative level. It is only by the addition of frequencies that the desired and expected growth of air transport can be achieved, and the Committee feels that it will be unrealistic to consider the cost results and corresponding overall tariff levels on the estimation of an average load factor appreciably higher than 65 per cent., although in the case of particular routes, where a very high load factor has been achieved and maintained, the assumption of a load factor higher than 65 per cent. would not be unjustified. (PARAGRAPH 179).

(89) The Dakota and the Viking when employed on stage distances typical of their actual application show very similar equivalent costs per seat-mile ranging between approximately $3\frac{1}{2}$ and $3\frac{3}{4}$ annas depending on utilization. If either aircraft is used on a stage length appreciably beyond the optimum range for the type, a drop in pay load raises the specific cost to a marked degree. For instance, the Viking operating Bombay—Calcutta non-stop (1036 miles) at 65 per cent. load factor shows an equivalent cost per seat-mile of 4.5 annas. Similarly, the Dakota operating Bombay—Madras non-stop (641 miles) shows at 65 per cent. load factor an equivalent cost per seat-mile of 3.96 annas. (PARAGRAPH 180).

(90) Even at its optimum stage distance, the SO-95 shows a cost level per seat-mile of 5 to $5\frac{1}{2}$ annas, i.e., more than 50 per cent. in excess of the other two types. This illustrates the extreme difficulty of obtaining profitable operations with a small type of aircraft at least within the existing low rate structure. (PARAGRAPH 180).

(91) In India, where fuel is extremely costly (even kerosene being likely to follow the pattern of petrol in this regard) and labour is relatively less expensive and where the volume of traffic does not appear likely to be enough for greatly increased frequencies of schedules, the conditions cannot be said to favour the introduction of the gas turbine. The Committee has, therefore, not made any estimate of the economics of gas turbine or pure jet types of aircraft under Indian conditions. (PARAGRAPH 181).

(92) Typical comparative results of the costs of operation of the Bristol New Type 170, the Airspeed Ambassador and the S.A.A.B. Scandia, have been tabulated. At 65 per cent. load factor, the Bristol New Type shows a result almost identical with that for the Dakota. On a 600 mile range, the Ambassador at 1500 hours utilization shows a result 11 per cent. better than the Viking on the same stage, and at 2000 hours utilization, the advantage is increased to 16 per cent. in favour of the Ambassador. At 300 miles the Scandia at 1500 hours utilization is about $3\frac{1}{2}$ per cent. more economical than the Dakota and at 2000 hours utilization the improvement rises to 9 per cent. in favour of Scandia. These results show that in spite of their high purchase price, more modern aircraft of efficient design could probably be operated with an economy competitive with that of the Dakota and the Viking, the chief obstacle to their adoption being the heavy capital outlay involved. It is, however, clear that the cost of operation of such types is very sensitive to the degree of utilization achieved and that, unless high utilization could be obtained their operation would be uneconomic. The problem then is one of deciding whether the traffic potential in India is such that a high degree of utilization with a high capacity aircraft can actually be achieved without having to operate at unremuneratively low load factor. (PARAGRAPHS 183—186).

(93) None of the three new types of aircraft examined shows costs as low as the 50 seat or 61 seat Skymaster. In the case of the 61 seat Skymaster at 2000 hours utilization, the equivalent cost per seat-mile is 25 per cent. below that of the Viking, viz., 2-4 annas per mile (without allowance for profit). The Committee is of the opinion that it is in the effective application of this aircraft that the most practical possibility of economic achievement of passenger fare levels of the order of $2\frac{1}{2}$ annas a mile lies. This would necessitate the availability of 40 passengers per trip as against 16 to 20 at present forming the average load travelling by Dakota or Viking. The difficulty then is with regard to the restricted traffic potential at present available. (PARAGRAPH 187).

(94) If all air transport operations in India were unified under one management, the cost of operation would be reduced by about $8\frac{1}{2}$ per cent. due to (a) reduction of costs under the items servicing, overhaul, administration, office rents, operations on-costs and training, accounts and audit, passenger services and traffic sales and agencies; and (b) reduction in cost consequent on increased utilization, which would be possible as there would be full freedom to develop operational route plans for the airline net-work as a whole. (PARAGRAPH 188).

(95) Under unified operation, there would be the possibility of making effective use of the Skymasters on heavy traffic routes, particularly the Bombay-Delhi, Bombay-Calcutta and Delhi-Calcutta routes. The use of Skymaster equipment with an interior layout of 61 seats would bring about an appreciable reduction in operating cost per ton mile and hence in the level of economic fares. The success of this operation would depend on the availability of sufficient traffic to maintain reasonable load factors. It is not clear that such traffic demand exists at the present time. The Committee thinks, however, that it should be possible within the near future to develop more traffic on the routes mentioned and, if a unified system of operation is adopted, the situation should be kept under constant review in order to use the Skymaster on the three routes referred to. (PARAGRAPH 190).

CHAPTER 6

Reorganisation of the Air Transport Industry

(96) The present pattern of operations, so far as term licence-holders are concerned, has been stabilised for ten years. The Committee has to accept this position and suggest possible ways of reorganization of the Industry for the next five years on the footing that the six term licence-holders will have the right to operate their routes unless their number is reduced by voluntary merger. (PARAGRAPHS 195 AND 196).

GLOSSARY OF ABBREVIATIONS

A.T.L.B.	Air Transport Licensing Board.
A.S.I.	Air Services of India.
A.I.I.	Air-India International.
B.O.A.C.	British Overseas Airways Corporation.
C.A.B.	Civil Aeronautics Board (U.S.A.).
C.A.T.C.	Civil Aviation Training Centre.
C. of A.	Certificate of Airworthiness.
C.T.M.	Capacity ton-miles.
D.G.C.A.	Director General of Civil Aviation.
D.G.P. & T.	Director General, Posts and Telegraphs.
H.A.I.	Hindustan Aircraft Limited.
I.C.A.O.	International Civil Aviation Organisation.
I.N.A.	Indian National Airways.
I.O.A.L.	Indian Overseas Airlines.
m.p.h.	Miles per hour.
P.A.A.	Pan American Airways.
T.A.A.	Trans-Australia Airlines.

PARAGRAPHS

PAGES

28. Sequel to the grant of licence for night air service to Himalayan Aviation	17
29. Grant of provisional licence to Indian Overseas Airlines for operating on the Bombay-Nagpur-Calcutta route	17
30. External Services to the West and formation of Air-India International.	18
31. Operations of Air-India International	18
32. External services to the East	19
33. Non-scheduled Operators	19
34. Certain statistics	19

PART II

PRESENT POSITION OF THE AIR TRANSPORT INDUSTRY

CHAPTER 3

Internal Services

SECTION (1)—GENERAL

35. Paragraphs (a), (b) and (c) of our terms of reference	21
36. Costs of operations of Air-India	21

SECTION (2)—AIR-INDIA

37. Brief history of the operations of Tata Airlines upto 1945	22
38. Formation of Air-India in 1946 and expansion of its activities	23
39. Formation of Air-India International of which Air-India became Technical Managers	23
40. Its existing routes, equipment, etc. and financial results for 1947, 1948 and 1949	23
41. Air-India's operating costs and revenue per mile of transportation.	24
42. Brief review of the financial position as disclosed by the latest available balance-sheet for 1948	25
43. Company's high costs of operation	25
44. High costs largely due to excess staff	26
45. Considerable spare capacity in its organisation	27
46. High scales of salaries at the upper levels	27
47. Unnecessarily large fleet of Dakotas	27
48. Elaborate training organisation	28
49. Large stock of spares.	28
50. Necessity for consolidation	28

SECTION (3)—INDIAN NATIONAL AIRWAYS

51. Brief history of its operations upto 1947	29
52. Its operations after Partition of India	30
53. Existing routes, fleet and financial results for 1947-48, 1948-49 and 1949-50	30
54. I.N.A.'s operating costs and revenue per mile of transportation	30
55. Brief review of its financial position as disclosed by the latest available balance-sheet for 1948-49	31
56. Causes of decline in the fortunes of I.N.A.	31

PARAGRAPHS	PAGES
57. Company's high cost of operation.	32
58. Large spare capacity in workshops and disproportionate number of pilots to co-pilots.	33
59. Ambitious and costly ventures.	33
60. Unnecessarily large fleet of Dakotas	33
61. Necessity for reducing costs of operation and of attracting traffic	33
SECTION (4)—AIR SERVICES OF INDIA	
62. Brief history of its operations	33
63. Existing routes, fleet and financial results for 1946-47, 1947-48 and 1948-49.	34
64. A.S.I.'s operating costs and revenue per mile of transportation	35
65. Brief review of the financial position as disclosed by the latest available balance-sheet for 1948-49	35
66. Disadvantages under which the Company operates	36
67. Costly experiments	36
68. Competition with Ambica Airlines for limited traffic	36
69. Unnecessarily large fleet of Dakotas	37
70. Desirability of fusion with other operators	37
SECTION (5)—DECCAN AIRWAYS	
71. Brief history of its operations	37
72. Existing routes, fleet and financial results for 1947, 1948 and 1949.	37
73. Operating costs and revenue per mile of transportation	38
74. Brief review of the financial position of the Company as disclosed by the latest available balance-sheet	38
75. Causes of decline in its fortunes in 1949	39
76. Excess capacity of its workshop facilities	39
77. Unnecessarily large fleet of Dakotas	39
SECTION (6)—AIRWAYS (INDIA)	
78. Brief history of its operations	39
79. Existing routes, fleet and financial results for 1947, 1948 and 1949	40
80. Operating costs and revenue per mile of transportation	40
81. Brief review of its financial position as disclosed by the latest available balance-sheet for 1949	41
82. Satisfactory working of the Company	41
83. Operating costs in 1949	42
84. Effect of competition from Himalayan Aviation, Bharat Airways and non-scheduled operators	42
SECTION (7)—BHARAT AIRWAYS	
85. Brief history of its operations	43
86. Existing routes, fleet and financial results for 1946-47, 1947-48, 1948-49 and 1949-50	43
87. Operating costs and revenue per mile of transportation	44
88. Brief review of the financial position as disclosed by the latest balance-sheet for 1948-49 and provisional balance-sheet for 1949-50	45
89. Operating costs in 1949-50	45
90. Difficulties of the Company	45
91. Excess capacity of its workshop	45
SECTION (8)—INDIAN OVERSEAS AIRLINES	
92. Brief history of its operations	45
93. Existing routes, fleet and financial results for the years 1946-47, 1947-48 and 1948-49	46
94. Operating costs and revenue per mile of transportation	47

PARAGRAPHS	PAGES
95. Brief review of its financial position as disclosed in the latest available balance-sheet for the year ended 31st March 1949	47
96. Its operating costs in 1949	48
97. Causes of its present difficulties	48
SECTION (9)—HIMALAYAN AVIATION	
98. Brief history of its operations	48
99. Existing routes, fleet and financial results of its operations for the year ended 30th June 1950	49
100. Brief review of its financial position as disclosed in its provisional balance-sheet for the year ended 30th June 1950	49
101. Effects of its operations on other operators	49
SECTION (10)—KALINGA AIRLINES	
102. Brief history of its operations	50
103. Circumstances under which a licence to operate scheduled freighter services was given	50
SECTION (11)—AMBICA AIRLINES AND JUPITER AIRWAYS	
104. Brief history of the operations of Ambica Airlines	50
105. Brief history of the operations of Jupiter Airways	51
SECTION (12)—DEFECTS IN THE ORGANISATION OF AND DIFFICULTIES ENCOUNTERED BY THE AIR TRANSPORT INDUSTRY	
106. Brief resume of the financial position of the Industry	51
107. Licensing of too many operators and uneconomic competition among them	52
108. Miscalculations made by the A.T.L.B. and the operating companies	53
109. Delay in the disposal of applications for licences	54
110. Over-equipment of the companies	54
111. Reasons for such over-equipment	55
112. Lack of proper planning and intense competition for a limited supply of technical personnel	55
113. Building up of unnecessarily large organisation by some companies.	56
114. Rising cost of aviation fuel	57
115. States' sales or other taxes on aviation fuel	57
116. Reduction of fares to uneconomic levels, particularly after the commencement of night services	58
117. The effect of non-scheduled operators	58
118. Effect of the All-up scheme and the night air mail service	59
119. Summary	60
CHAPTER 4	
External Services	
120. Commencement of services to the West of India	61
121. Statistics of Air-India International's operations and financial results for 1948 and 1949	61
122. Reasons for Air-India International's loss in 1948	61
123. Commencement of services to the East of India	62
124. Service to Teheran	62

PART III
Reorganization of the Air Transport Industry
CHAPTER 5

Reasonable Cost of Operation

PARAGRAPHS	PAGES
125. General	63
126. Factors which govern reasonable costs	63
127. Nature of routes and traffic potential	63
128. Elements which make up the operating cost	63
129. Characteristics of aircraft types	64
130. Speed	65
131. Payload	66
132. Economic characteristics	67
133. Hourly operating costs directly dependent on aircraft characteristics	69
134. Fixed direct operating costs (i.e., irrespective of amount of flying)—Depreciation—Aircraft and capital spares	69
135. Aircraft insurance	70
136. Aircraft housing fees	70
137. Variable direct operating costs (i.e., according to amount of flying)—Fuel and oil—Reasonable rate of fuel consumption of the Dakota	70
138. High price of aviation fuel in India	71
139. Cost of fuel and oil for the purpose of our calculations	71
140. Cost per hour for "fuel and oil"	72
141. Flight crew salaries (excluding hostesses)—Composition of crew	73
142. Emoluments of crew	73
143. Reasonable flight crew utilization	73
144. Cost per hour for "Flight crew salaries"	74
145. Landing fees	75
146. Interest on working capital	75
147. Hourly operating costs dependent on skill and efficiency of management	76
148. Aircraft servicing	78
149. Estimates of minimum costs submitted by operating companies	79
150. Influence of aircraft utilization on "Servicing" costs per hour	79
151. "Servicing" costs per hour for SO-95	80
152. "Servicing costs" per hour for Skymaster	80
153. Aircraft overhaul—Airframe	80
154. "Airframe overhaul" cost per hour for Viking	80
155. "Airframe overhaul" cost per hour for SO-95	81
156. "Airframe overhaul" cost per hour for Skymaster	81
157. Change in the periodicity of airframe overhaul	81
158. D.G.C.A.'s estimate of cost per hour for "Airframe overhaul"	82
159. Engine overhaul	82
160. "Engine overhaul" cost per hour for Viking	83
161. D.G.C.A.'s estimate of "Engine overhaul" cost per hour	83
162. "Engine overhaul" cost per hour for SO-95	83
163. "Engine overhaul" cost per hour for Skymaster	83
164. Administration, office rents and expenses, operations on—costs and flight training	84

PARAGRAPHS	PAGES
165. Passenger services	85
166. Traffic, sales and agencies	85
167. Publicity and advertising	86
168. Medical and welfare	86
169. Accounts and audit	86
170. Miscellaneous	87
171. Total cost	87
172. Estimates of costs submitted by D.G.C.A.	94
173. Standard cost charts—Cost per hour	94
174. Cost per mile	95
175. Cost per ton-mile	95
176. Significance of results	95
177. Cost levels attained by the companies as compared to our standard costs	96
178. Our standard costs figures make no allowance for profit	96
179. Typical results	96
180. Operating costs of Dakota and Viking when operated at their optimum stage lengths	98
181. Future prospects	98
182. Estimated capital costs of three new types of aircraft	101
183. Payload of Bristol New Type 170	101
184. Payload of Ambassador	102
185. Payload of Scandia	102
186. Costs of operation of the three new types and comparison with those of Dakota and Viking	102
187. Costs of operation of 61-seat Skymaster.	103
188. Possible reduction of costs if all operations were under one management	103
189. Reduction of costs consequent on increased utilization	104
190. Possibility of effective use of Skymaster aircraft under unified operation	104
CHAPTER 6	
Reorganization of the Air Transport Industry	
191. Paragraph (d) of our terms of reference	105
192. Brief recapitulation of the development of the air services	105
193. Present unbalanced distribution of route mileage and traffic among the companies	108
194. Too many operators for the available amount of traffic	108
195. Situation complicated by grant of term licences	109
196. Committee's recommendations to take into account existing position as established by grant of term licences	109
197. Possibility of reduction in number of operating units being brought about by voluntary mergers	110
198. Elimination of provisional licence-holders	110
199. Indian Overseas Airlines	110
200. Himalayan Aviation—How it came into the field of scheduled operations?	111
201. Renewal of its provisional licence up to end of January 1951	112
202. Examination of the position of the other companies in regard to operation of night air services and of the grounds for giving provisional licence to Himalayan Aviation	112
203. Examination of the grounds for renewing Himalayan Aviation's provisional licence in January 1950	113
204. Financial results of Himalayan Aviation's operation of the night services	113
205. Exceptional circumstances in which Himalayan Aviation operates	114
206. Further points to be taken into account in assessing financial results of Himalayan Aviation	114

PARAGRAPHS	PAGES
207. Provisional licence of Himalayan Aviation not to be renewed on its expiry in January 1951	115
208. Kalinga Airlines	115
209. Additional route mileage for term licence-holders can only be made available by elimination of provisional licence-holders	116

CHAPTER 7

Redistribution of routes

210. Details of redistribution	116
211. Reasons for redistribution	117
212. Air-India	117
213. Indian National Airways	118
214. A. S. I.—Deccan—A.S.I.'s present position	118
215. Deccan Airways' present position	119
216. Position under the merger	119
217. Airways (India)	119
218. Bharat Airways	120
219. Results of the redistribution	121

CHAPTER 8

Fixation of Fares, Freight Rates and Mail Rates.

220. Dependence of revenue of operating companies on tariff levels	124
221. Review of position relating to tariff structure prior to formation of Committee	124
222. Position after 1st July 1949	124
223. Freight rates delinked from passenger fares	125
224. Effects of the changes in tariff levels on the revenues of the companies	125
225. Factors to be borne in mind in fixation of passenger fares	125
226. Levels of fares to be such as to give a 10 per cent. return on investment to operator	126
227. Estimation of capital investment for each operator	126
228. Explanation of the statements in Appendix XVIII	127
229. Calculation of fare for Air-India's Bombay-Calcutta non-stop service	127
230. Drawing up of ranges of fares for the routes in India and to neighbouring countries	128
231. Levels of fares intimately linked up with assumed load factors	130
232. Further lowering of fare levels possible only if there is reduction of price levels all round	130
233. Freight rates	130
234. Mail rates—Position prior to 1st April 1949	130
235. Change in mail rates when All-up mail scheme was introduced	131
236. Mail rates in other countries	131
237. Submissions of the operating companies	133
238. Point of view of the D. G. P & T. that mail rate should be same as cargo rate	133
239. D.G.P. & T.'s suggestion for mail rate for second Class Mails	134
240. Mail rate for carriage by external services	134
241. Mail rate to be 12½ per cent. over reasonable freight rate	134
242. Mail rate for First Class Mails to be Rs. 3-1-0 per ton-mile	134
243. Mail rate for Second Class Mails to be Rs. 2 per ton-mile	135
244. Mail rates for international services	135

CHAPTER 9

Financial Results of the Reorganisation

245. Comparison of the financial results of the companies for the first quarter of 1950 on the basis of their actual cost and on reasonable costs	135
246. Result of such comparison for each company	136
247. Financial position of the operating units under our Reorganization Scheme	136
248. Air-India	137
249. I. N. A.	137
250. A. S. I.—Deccan	137
251. Airways (India)	137
252. Bharat Airways	137
253. Results in the case of A. S. I. and Deccan Airways if the proposed merger does not materialize	137
254. Disposal of companies' surplus equipment	137
255. Necessity of retrenchment in the staff of the companies	138
256. Pilots not likely to be rendered surplus	138
257. Surplus of Radio Officers to be absorbed so far as practicable in the Civil Aviation Department and the Indian Air Force	139
258. Ground technical staff	139
259. Clerical staff	139

CHAPTER 10

Financial Assistance by Government

260. Importance of air transport to India	140
261. Assistance to the Air Transport Industry in the U. S.A. and Australia	140
262. Financial position of the Air Transport Industry in other countries	141
263. Government assistance to the Air Transport Industry justified	142
264. Recognition of the principle of assistance to the Air Transport Industry	142
265. Method of giving assistance to the Industry	143
266. Our standard costs	143
267. Estimation of potential revenue and working out of break-even need	144
268. Margin of profit	144
269. Rate of profit	145
270. Financial position of the companies under our Scheme of Reorganization	145
271. Two important assumptions	145
272. Travel by air by Government officers on duty	146
273. Review of the position in October 1952	146
274. Financial assistance to the companies in the interim period	147
275. No Government assistance for non-scheduled operations	147
276. A.T.L.B. to be the body for assessing the needs of the Industry in the future	147
277. Restrictions on the disposal of future profits	148
278. New functions and powers of the A.T.L.B.	148
279. Reconstitution of the A.T.L.B. and strengthening of its secretariat	148
280. Importance of companies' maintaining accounts on a uniform basis and having a uniform financial year	149

CHAPTER 11

Non-Scheduled operators

281. Non-scheduled operators and the amount of work done by them	149
282. Distinction between scheduled and non-scheduled services	150

PARAGRAPHS	PAGES
283. Conditions prescribed by D.G.C.A. when permitting non-scheduled operations	150
284. Comparison of position of non-scheduled operations in India with that in Australia	151
285. Conditions of permit to non-scheduled operators frequently evaded in practice	152
286. No replies received to our Questionnaire from non-scheduled operators	152
287. Comparison of position in the Industry of purely non-scheduled operators with that of scheduled operators	153
288. Purely non-scheduled operators to be allowed to continue	153
289. Non-scheduled operator usually a pioneer	154
290. Some well-established non-scheduled operators	154
291. Competition by purely non-scheduled operators	154
292. Conditions on which purely non-scheduled operators may be allowed to continue	155

CHAPTER 12

External Services

293. Item (d) of our terms of reference	153
294. Air-India International's operations to the West	159
295. Bharat Airways' operations to the East	157
296. Possibility of entrusting Eastern and Western services to one operator	157
297. Increase of the frequencies of A. I. I.'s services to London and Nairobi	158
298. Extension of the India-U. K. service to the U. S. A.	153
299. Proper arrangements to be made for allocation of common expenditure between Air-India and A. I. I.	158
300. Extension of Eastern route to Australia	159
301. Traffic potential on the route to Singapore	159
302. Estimates of cost of operations to Singapore	159
303. Government assistance to Bharat Airways for operation of external services	160
304. Conditions of Government assistance	160
305. Restriction on carriage of "Fifth Freedom" traffic by foreign airlines	160

CHAPTER 13

Miscellaneous Points

SECTION (1)—RE-EQUIPMENT OF THE AIR TRANSPORT COMPANIES

306. Present position	161
307. Operation on feeder routes	161
308. Examination of possible new types	162
309. Development of jet types of aircraft	162
310. No justification for replacement of the Dakota in the immediate future	163
311. Selection of a common transport type for civil air transport and Air Force	163
312. External operations	163

SECTION (2)—HINDUSTAN AIRCRAFT LIMITED

313. How Hindustan Aircraft Limited was formed	163
314. Nature of work done at Hindustan Aircraft Limited	164
315. Work done for civil air transport companies	164
316. Complaints against Hindustan Aircraft Limited	165
317. Justification for operating companies to have their own overhaul establishments	165
318. Manufacturing activities of Hindustan Aircraft Limited	166
319. Production of a medium transport	166

X

SECTION (3)—THE NIGHT AIR SERVICES

PARAGRAPHS	PAGES
320. Origin of night air services	167
321. Adequacy of the arrangements for night operation	167
322. Facilities for night operation satisfactory	168

SECTION (4)—TRAINING OF PILOTS AND GROUND ENGINEERS

323. Need for training facilities	169
324. Position prior to War	169
325. Present position regarding training facilities	169
326. Effect of our Reorganization Scheme	170
327. Gliding	170

SECTION (5)—FEEDER ROUTES

328. Expensiveness of operations on feeder routes	171
329. Possible feeder routes that could be developed	171
330. Policy of expansion to be adopted with caution	172

SECTION (6)—COACH-CLASS SERVICES

331. Definition of Coach-class services	172
332. Basic conditions absent in India	172

SECTION (7)—EXCLUSIVE FREIGHTER SERVICES

333. Growth of freight traffic and what it consists of	173
334. Cases of pure freighter services	173
335. Circumstances in which pure freighter services could be operated	174

SECTION (8)—OTHER ITEMS

336. Economy in expenditure by pooling of arrangements for booking, surface transport, etc.	174
337. Aircraft insurance	174
338. Passenger insurance	175
339. Manufacture in India of aircraft spares.	175
340. Import licences for aircraft spares	175
341. Customs duty on aircraft accessories	176
342. Scheduling of air services and connections with other air services	176
343. Industrial disputes	176
344. Aircraft overhaul and inspection procedures	177

PART IV

CHAPTER 14

State Ownership

PARAGRAPHS	PAGES
345. Paragraph (e) of terms of reference	179
346. Conference held on 1st February 1947	179
347. Views expressed at the Conference	180
348. Government's resolution on industrial policy issued in 1948	180
349. Development of air transport to be left to private enterprise with planning and regulation of it by Government.	181
350. Issue of term licences to air transport operators in July 1949	181
351. Arguments in favour of State operation of air services	181
352. Factors to be borne in mind before nationalization is decided upon	182—183
353. Question Committee put to itself	184
354. Efficiency of operation under State operation and private enterprise	184
355. Operation by State Corporation	184
356. Economy in expenditure	185
357. Future development	185
358. Record of private air companies	185
359. Examination of the argument that Industry is now working at a loss	185
360. No justification for nationalisation	186
361. If State ownership decided upon, operation to be entrusted to Statutory Corporation	187
362. Methods of acquiring the undertakings of the operating companies	187
363. Valuation of the assets of the operating companies	187
364. Constitution of the Corporation	188
365. Advantages of having D.G.C.A. on the Board of the Corporation	188
366. Costs of operation by the Corporation	188

PART V

CHAPTER 15

367. Summary of conclusions and recommendations	191—218
---	---------

CHAPTER 16

368. Acknowledgments	218—220
--------------------------------	---------

PART VI

APPENDICES

No. of APPENDIX.

I. List of bodies and persons who sent preliminary memoranda to the Committee	223
II. Questionnaire issued by the Committee	224—249
III. List of bodies and persons to whom copies of the Questionnaire were sent	250—252
IV. List of bodies and persons who sent replies to the Questionnaire	253—254
V. List of bodies and persons who gave oral evidence before the Committee or with whom the Committee held informal discussions	255—256
VI. Statement showing companies and the routes for which provisional or temporary licences were granted to them by the Air Transport Licensing Board upto 30th June 1949	257—258
VII. Statement showing 10-year term licences granted by the Air Transport Licensing Board from 1st July 1949	259—261
VIII. List of non-scheduled operators and the amount of flying done by them during the years 1947 to 1950	262

X

SECTION (3)—THE NIGHT AIR SERVICES

PARAGRAPHS

PAGES

320. Origin of night air services	167
321. Adequacy of the arrangements for night operation	167
322. Facilities for night operation satisfactory	168

SECTION (4)—TRAINING OF PILOTS AND GROUND ENGINEERS

323. Need for training facilities	169
324. Position prior to War	169
325. Present position regarding training facilities	169
326. Effect of our Reorganization Scheme	170
327. Gliding	170

SECTION (5)—FEEDER ROUTES

328. Expensiveness of operations on feeder routes	171
329. Possible feeder routes that could be developed	171
330. Policy of expansion to be adopted with caution	172

SECTION (6)—COACH-CLASS SERVICES

331. Definition of Coach-class services	172
332. Basic conditions absent in India	172

SECTION (7)—EXCLUSIVE FREIGHTER SERVICES

333. Growth of freight traffic and what it consists of	173
334. Cases of pure freighter services	173
335. Circumstances in which pure freighter services could be operated	174

SECTION (8)—OTHER ITEMS

336. Economy in expenditure by pooling of arrangements for booking, surface transport, etc.	174
337. Aircraft insurance	174
338. Passenger insurance	175
339. Manufacture in India of aircraft spares	175
340. Import licences for aircraft spares	175
341. Customs duty on aircraft accessories	176
342. Scheduling of air services and connections with other air services	176
343. Industrial disputes	176
344. Aircraft overhaul and inspection procedures	177

PART IV

CHAPTER 14

State Ownership

PARAGRAPHS	PAGES
345. Paragraph (e) of terms of reference	179
346. Conference held on 1st February 1947	179
347. Views expressed at the Conference	180
348. Government's resolution on industrial policy issued in 1948	180
349. Development of air transport to be left to private enterprise with planning and regulation of it by Government.	181
350. Issue of term licences to air transport operators in July 1949	181
351. Arguments in favour of State operation of air services	181
352. Factors to be borne in mind before nationalization is decided upon	182—183
353. Question Committee put to itself	184
354. Efficiency of operation under State operation and private enterprise	184
355. Operation by State Corporation	184
356. Economy in expenditure	185
357. Future development	185
358. Record of private air companies	185
359. Examination of the argument that Industry is now working at a loss	185
360. No justification for nationalisation	186
361. If State ownership decided upon, operation to be entrusted to Statutory Corporation	187
362. Methods of acquiring the undertakings of the operating companies	187
363. Valuation of the assets of the operating companies	187
364. Constitution of the Corporation	188
365. Advantages of having D.G.C.A. on the Board of the Corporation	188
366. Costs of operation by the Corporation	188

PART V

CHAPTER 15

367. Summary of conclusions and recommendations	191—218
---	---------

CHAPTER 16

368. Acknowledgments	218—220
--------------------------------	---------

PART VI

APPENDICES

No. of Appendix.

I. List of bodies and persons who sent preliminary memoranda to the Committee	223
II. Questionnaire issued by the Committee	224—249
III. List of bodies and persons to whom copies of the Questionnaire were sent	250—252
IV. List of bodies and persons who sent replies to the Questionnaire	253—254
V. List of bodies and persons who gave oral evidence before the Committee or with whom the Committee held informal discussions	255—256
VI. Statement showing companies and the routes for which provisional or temporary licences were granted to them by the Air Transport Licensing Board upto 30th June 1949	257—258
VII. Statement showing 10-year term licences granted by the Air Transport Licensing Board from 1st July 1949	259—261
VIII. List of non-scheduled operators and the amount of flying done by them during the years 1947 to 1950	262

X

SECTION (3)—THE NIGHT AIR SERVICES

PARAGRAPHS	PAGES
320. Origin of night air services	167
321. Adequacy of the arrangements for night operation	167
322. Facilities for night operation satisfactory	168

SECTION (4)—TRAINING OF PILOTS AND GROUND ENGINEERS

323. Need for training facilities	169
324. Position prior to War	169
325. Present position regarding training facilities	169
326. Effect of our Reorganization Scheme	170
327. Gliding	170

SECTION (5)—FEEDER ROUTES

328. Expensiveness of operations on feeder routes	171
329. Possible feeder routes that could be developed	171
330. Policy of expansion to be adopted with caution	172

SECTION (6)—COACH-CLASS SERVICES

331. Definition of Coach-class services	172
332. Basic conditions absent in India	172

SECTION (7)—EXCLUSIVE FREIGHTER SERVICES

333. Growth of freight traffic and what it consists of	173
334. Cases of pure freighter services	173
335. Circumstances in which pure freighter services could be operated	174

SECTION (8)—OTHER ITEMS

336. Economy in expenditure by pooling of arrangements for booking, surface transport, etc.	174
337. Aircraft insurance	174
338. Passenger insurance	175
339. Manufacture in India of aircraft spares	175
340. Import licences for aircraft spares	175
341. Customs duty on aircraft accessories	176
342. Scheduling of air services and connections with other air services	176
343. Industrial disputes	176
344. Aircraft overhaul and inspection procedures	177



PART IV

CHAPTER 14

State Ownership

PARAGRAPHS	PAGES
345. Paragraph (e) of terms of reference	179
346. Conference held on 1st February 1947	179
347. Views expressed at the Conference	180
348. Government's resolution on industrial policy issued in 1948	180
349. Development of air transport to be left to private enterprise with planning and regulation of it by Government.	181
350. Issue of term licences to air transport operators in July 1949	181
351. Arguments in favour of State operation of air services	181
352. Factors to be borne in mind before nationalization is decided upon	182—183
353. Question Committee put to itself	184
354. Efficiency of operation under State operation and private enterprise	184
355. Operation by State Corporation	184
356. Economy in expenditure	185
357. Future development	185
358. Record of private air companies	185
359. Examination of the argument that Industry is now working at a loss	185
360. No justification for nationalisation	186
361. If State ownership decided upon, operation to be entrusted to Statutory Corporation	187
362. Methods of acquiring the undertakings of the operating companies	187
363. Valuation of the assets of the operating companies	187
364. Constitution of the Corporation	188
365. Advantages of having D.G.C.A. on the Board of the Corporation	188
366. Costs of operation by the Corporation	188

PART V

CHAPTER 15

367. Summary of conclusions and recommendations	191—218
---	---------

CHAPTER 16

368. Acknowledgments	218—220
--------------------------------	---------

PART VI

APPENDICES

No. of APPENDIX.

I. List of bodies and persons who sent preliminary memoranda to the Committee	223
II. Questionnaire issued by the Committee	224—249
III. List of bodies and persons to whom copies of the Questionnaire were sent	250—252
IV. List of bodies and persons who sent replies to the Questionnaire	253—254
V. List of bodies and persons who gave oral evidence before the Committee or with whom the Committee held informal discussions	255—256
VI. Statement showing companies and the routes for which provisional or temporary licences were granted to them by the Air Transport Licensing Board upto 30th June 1949	257—258
VII. Statement showing 10-year term licences granted by the Air Transport Licensing Board from 1st July 1949	259—261
VIII. List of non-scheduled operators and the amount of flying done by them during the years 1947 to 1950	262

No. OF APPENDIX	PAGE
IX. Statement of the companies with the routes in respect of which they held licences on 1st July 1950	263—264
X. Statement showing the route mileage operated by scheduled air transport companies on 1st July 1950, the annual flying hours involved and the number and categories of transport aircraft possessed by them	265
XI. Progress of air traffic carried by the scheduled air transport companies (internal and international) from 1946 to 1950	266
XII. Graphs of traffic statistics from October 1946 to June 1950 showing :—	
(a) miles and hours flown by the scheduled operators.	267
(b) volume of revenue traffic carried under different categories.	268
(c) total revenue traffic carried in ton-miles.	269
(d) passenger-miles flown.	270
(e) capacity operated and traffic carried in ton-miles.	271
(f) revenue load factor.	272
(g) number of passengers and passenger-miles.	273
XIII. Statement showing the cost of transportation performed by the operating companies and the revenue earned by them in terms of annas per mile	274—275
XIV. Statement showing the financial results of the operations of the scheduled operating companies for the latest financial year for which they have furnished figures	276
XV. Charts showing reasonable costs of operations of the types of transport aircraft in use in India.—	
Charts 1A to 1D Cost per hour for the Dakota, the Viking, the SO-95 and the Skymaster for different levels of aircraft utilization	277—280
Charts 2 and 3 Block flight time and average block speed for the Dakota, the Viking and the SO-95 for different stage lengths	281—282
Charts 4A to 4D(ii) Variable direct operating costs and total operating costs per mile for the Dakota, the Viking, the SO-95 and the Skymaster for different utilizations and stage lengths	283—287
Charts 5A to 5D Payload in pounds of the Dakota, the Viking, the SO-95 and the Skymaster for different stage lengths	288—291
Charts 6A (i) to 6D (iv) Cost per ton-mile of the passenger Dakota, Freighter Dakota, the Viking, the SO-95 and the Skymaster (38 seater, external and internal, 50 seater and 61 seater) at 100 per cent. load factor for different stage lengths and hours of utilization	292—299
XVI. Extract from the Australian Air Navigation Regulations relating to limitations on the utilization of pilots	301—303
XVII. Statements comparing the financial results of the actual operations of the scheduled companies during the 1st quarter of 1950 on the basis of average cost attained by each company during the latest financial year for which figures have been furnished and results based on reasonable cost of operation estimated by the Committee	305—315
XVIII. Statements of reasonable levels of revenues per ton-mile (with corresponding passenger fares) to be earned by the companies to get a gross profit of 10 per cent. on their fixed capital assets	317—326
XIX. Statement showing financial results of the companies under the plan of reorganisation proposed by the Committee	327—334
XX. Statement showing the paid-up capital, loans and original value of the assets of the scheduled air transport companies as far as these could be ascertained	335
XXI. Map of India showing air route as on 1st July 1950	