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MADRAS RECORD OFFICE

Government of Madras

Public Works DEPARTMENT

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Dated	22.3.	1876.

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*Proceedings of the Madras Government, Public Works Department,
22nd March 1876.*

No. 343. Read the following letter from Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, to Major-General G. W. WALKER, R.E., Secretary to Government, Public Works Department, dated Madras, 18th February 1876, No. 96:—

ADVERTING to the Proceedings of this Government, No. 3,087, of the 1st November 1875, I have the honor to report the results of my inquiries into the working of the traffic on the South Indian Railway during the half-year ended 31st December 1874, and to enclose

the marginally noted papers containing the opinions of the Agent, Traffic Manager, and Chief Auditor, on the subject.

2. *Number of Trains.*—The average number of trains run daily on this line, each way, during the period in question was 2·379. The ordinary train service on the Arconum-Conjeveram section could not well be reduced without inconvenience to the public, as it consisted of one train only each way daily; extra trains being run during festivals. On the Negapatam-Erode section, the acceleration of the speed of the trains carrying the mails necessitated the running of a few additional local trains for goods as occasion required, and a portion of the material for the Southern

* *Vide* Proceedings of Government, dated 29th April 1874, No. 1,105, and 18th December 1874, No. 3,569.

Extension was also worked* up in special trains. The time-table for this period provided for an average of 1·86 trains each way daily.

3. *Load and Composition of Trains.*—In the papers embodied in the Proceedings of Government above adverted to, it will be seen that the India Office officials have excluded from their calculations an important element of traffic, *viz.*, the construction material carried for the lines in progress. The ton mileage of this traffic amounted to 589,109 or 14·89 per cent. of a gross total for goods traffic of 3,956,304. With a view to the comparison of the useful effect of trains, a table has been compiled showing the weights of the different classes of trains, their paying loads, &c., on the South Indian Railway for each half-year since 1870, and the same particulars for other Indian lines during the half-year ending 31st December 1874.

4. It will be seen that a considerable improvement has taken place on the South Indian Railway during the four years, the average load of all trains for the half-year alluded to by the Secretary of State, being 164 passengers and 24·3 tons of goods. Excluding the East Indian (Main) and Eastern Bengal, the useful effect of the South Indian trains compares favorably with most other lines. No doubt the weak point of this line is the small goods traffic, the receipts from passengers exceeding those from goods; this is also the case on the Oude and Rohilkund line, where the average loads are very similar to those on the South Indian. It will be seen from the table that the number of passengers in a full train exceeds that of any other line, being for the half-year specially under review 338, which may be considered a very good train. This is due, not to the number of carriages run, but to their being well filled, the average number in a carriage being greater than on any other line. The low fare has no doubt had its effect in bringing about this result; but even before the alteration, the filling of carriages is shown to have been good.

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22nd March 1876.

5. Although the trains appear light, the working is economical, as shown by the following table, giving the cost of carrying a unit of the principal items of traffic during the second-half of 1874:—

	East Indian (Train.)	East Indian (Job- bulpore).	Scinde.	Punjab and Delhi.	Oude and Rohil- cund.	Eastern Bengal.	Great Indian Penin- sula.	Bombay Baroda and Central India.	Madras.	South Indian.
3rd-class passenger	PIES. 0 81	PIES. 1 27	PIES. 2 39	PIES. 1 63	PIES. 1 19	PIES. 3 25	PIES. 1 82	PIES. 1 64	PIES. 1 084	PIES. 0 739
4th-class do.	...	...	...	...	...	...	...	...	...	...
Ton of goods	PIES. 4 02	PIES. 6 20	PIES. 10 48	PIES. 5 55	PIES. 8 09	PIES. 5 16	PIES. 8 18	PIES. 5 11	PIES. 7 896	PIES. 7 332

It appears that the cost of carrying a third-class passenger was less on the South Indian than on any other line, while the average cost of hauling a ton of goods does not compare very unfavorably.

6. The decrease in the average weight of trains during 1874 is probably attributable to the increased speed of the mail. Its average load throughout the journey being twelve vehicles, we arrive at an average of 20.3 vehicles for all other trains. The proportion of freight to dead load in goods wagons is small; but when the inequality of up and down traffic, as explained in the Chief Auditor's letter, is considered, this does not appear capable of remedy. It may be in part due to the fact that covered goods wagons are principally used, which do not admit of large loads of light freight; but the subject has often been discussed, and the Agent considers them preferable to open wagons on account of the greater security they afford against loss by pilfering and rain. Nearly the whole of the wagons conveying railway material from Negapatam to Trichinopoly had to be worked back empty, while a full load of sleepers weighed only 2½ tons. The mileage of empties formed 27.11 per cent. of the total goods vehicle mileage.

7. The heaviest engines weigh 30 tons; have six wheels coupled, 4' 6" diameter; cylinders 15" diameter with 22" stroke; tractive power (with an effective steam pressure of 100 lbs.) 9,167 lbs. The gross weight of a train of 20.3 vehicles, with engine and tender, would be about 200 tons; and this does not appear an unfavorable average load for engines of the above description. The line is generally flat, but between Caroor and Erode the ruling gradient is 1 in 100. The metre gauge engines now working between Trichinopoly and Negapatam have a slightly higher tractive power, and are hauling good loads at the reduced speed. Had the whole of the line remained on the broad gauge, it might have been advisable to increase the weight and power of the locomotives.

8. It has, I think, been shown that the traffic is worked with great economy, notwithstanding the small average gross load of trains, and I would not recommend any change in the train service at present. When the Northern Extension is opened throughout, it is probable that one train daily on the Trichinopoly-Erode section will suffice. I agree with the Agent that it would not have been possible to work the traffic more economically and at the same time with efficiency.

Proceedings of the Madras Government, Public Works Department,
22nd March 1876.

South Indian Railway.

Half-year ending—	ALL TRAINS.										PASSENGER TRAINS.					GOODS TRAINS.					Total Number of Trains per day each way.	
	Mean mileage worked.	Traffic Train Miles.	Number of Passengers per Train.	Tons of Goods per Train.	Total tonnage of Freight.	Dead load.	Total Weight of Trains, exclusive of engine and tender.	Average number of Vehicles in a Train.	Number of Train Miles due to Passengers.	Number of Passengers per Passenger Train.	Miscellaneous extra Vehicles.	Total number of Vehicles in Passenger Train.	Average Number of Passengers in a Vehicle.	Number of Goods per Goods Train.	Number of Vehicles in a Goods Train.	Average number of Tons of Freight in a Goods Vehicle.	Number of Passenger Trains per day each way.	Number of Goods Trains per day each way.	Total Number of Trains per day each way.			
30th June 1871	167	121,801	104	201	269	930	118.9	15.4	50,788	250	2.5	15.4	19.7	71,013	15.4	3.275	840	1,175	2,015			
31st Dec. "	167	126,544	117	200	277	882	115.9	14.8	60,035	247	1.3	14.8	19.5	66,509	14.8	2.633	977	1,082	2,059			
30th June 1872	167	121,158	113	236	309	891	120.0	15.3	51,759	255	1.6	15.3	20.0	69,399	15.3	2.780	851	1,143	1,993			
31st Dec. "	167	123,560	158	24.2	34.3	96.4	130.7	16.6	58,699	332	1.4	16.6	22.7	64,861	16.6	2.878	955	1,056	2,011			
30th June 1873	167	182,161	147	33.6	43.0	96.7	139.7	17.0	70,394	381	1.4	17.0	25.2	111,867	17.0	3.313	1,163	1,850	3,013			
31st Dec. "	167	138,030	179	26.6	38.0	102.0	140.0	17.6	64,292	370	1.4	17.6	23.6	68,738	17.6	3.017	1,046	1,118	2,164			
30th June 1874	167	144,476	144	25.6	34.9	96.7	131.6	16.9	61,174	341	1.4	16.9	22.7	68,302	16.9	2.705	1,013	1,378	2,390			
31st Dec. "	186	162,852	164	24.3	34.8	96.7	131.5	16.8	79,184	338	1.7	16.8	22.9	83,668	16.8	2.829	1,157	1,222	2,379			

Other Railways in India for Half-year ending 31st December 1874.

	Mean mileage worked.	Traffic Train Miles.	Number of Passengers per Train.	Tons of Goods per Train.	Total tonnage of Freight.	Dead load.	Total Weight of Trains, exclusive of engine and tender.	Average number of Vehicles in a Train.	Number of Train Miles due to Passengers.	Number of Passengers per Passenger Train.	Miscellaneous extra Vehicles.	Total number of Vehicles in Passenger Train.	Average Number of Passengers in a Vehicle.	Number of Goods per Goods Train.	Average number of Tons of Freight in a Goods Vehicle.	Number of Passenger Trains per day each way.	Number of Goods Trains per day each way.	Total Number of Trains per day each way.	
East Indian (Main)	1,280	2,871,800	72	69.0	74.1	172.9	247.0	23.9	871,726	259	5.3	23.9	13.5	99.0	8.430	1,850	4,947	6,097	
Do. (Jubbulpore)	224	318,278	68	40.8	46.0	146.0	194.0	21.3	91,601	163	5.3	21.3	12.8	70.3	3.088	1,111	1,537	2,648	
Scinde	554	75,740	83	62.5	64.9	133.8	197.7	23.1	25,331	94	3.0	23.1	14.2	95.8	3.330	851	1,220	1,971	
Punjab and Delhi	540	554,008	91	89.0	45.5	155.4	200.9	27.5	329,232	193	3.4	27.5	10.3	96.1	2.810	1,415	1,102	2,517	
Oude and Rohilcund	153	310,714	145	27.8	88.0	155.5	193.5	23.3	152,747	295	2.7	23.3	15.1	54.7	2.434	769	795	1,564	
Eastern Bengal	153	276,653	95	65.0	71.4	156.0	227.4	23.9	154,260	170	3.3	23.9	17.6	147.9	2.854	2,653	2,105	4,758	
Great Indian Peninsula	1,266	1,644,880	63	42.9	47.6	108.4	156.0	18.3	775,006	134	3.5	18.3	13.8	81.1	3.910	1,864	1,866	3,726	
Bombay, Baroda, and Central India.	423	422,690	130	32.3	41.0	127.2	168.2	19.6	247,839	223	2.8	19.6	19.3	77.9	3.009	1,570	1,114	2,684	
Madras	853	957,623	74	31.4	36.6	96.0	133.2	15.8	317,948	203	2.4	15.8	17.3	49.4	3.241	1,103	1,931	3,033	

NOTE.—The mileage of mixed trains is divided between passenger and goods in the proportion of the resulting mileages derived from the average numbers of vehicles in passengers and goods trains respectively.

Brakes are included in the average numbers of vehicles in trains.

The traffic on the Bombay lines being lighter in the second than in the first half of the year, the results here shown are somewhat below the average.

MADRAS,

18th February 1876.

(Signed) J. I. M. SIAW-STEWART, Lt.-Col., R.E.,
Consulting Engineer for Railways.

*Proceedings of the Madras Government, Public Works Department,
22nd March 1876.*

From W. S. BETTS, Esq., Agent of the South Indian Railway, to Lieutenant-Colonel J. H. M. SHAW-STEWART, R.E., Consulting Engineer for Railways, dated Negapatam, 21st January 1876, No. 1,194.

YOUR letter No. 826 of the 19th November last was received during my absence from India. I find that Mr. Logan made inquiry regarding the representations contained in Sir Louis Mallet's letter, and that the Traffic Manager and Chief Auditor reported thereon. A copy of their reports I attach for your information. I do not think it would have been possible to have worked without great delay (in a less number of trains than were employed) the traffic which was hauled during the half-year ending the 31st December 1874. Nor do I think it would have been worked with efficiency more economically. The India Office letters remark that the cost "is small."

Sufficient allowance has not been made by Sir Louis Mallet for the inequality of up and down traffic which necessitated the running of a large amount of empty vehicle mileage. Table VII of your review for the period in question shows that the average weight of our trains (exclusive of engines, tenders, and brakes) was 130 tons, of which upwards of 95 tons represented dead load.

From the Traffic Manager, to the Agent of the South Indian Railway, dated Trichinopoly, 27th September 1875, No. 10,057/9,295.

Revenue Account of this Company for the second-half of 1874.

WITH reference to your letter No. 3,100, enclosing extract of letter from the India Office. The apparently small loads of trains is accounted for by the large empty mileage we were obliged to run during the half-year ending December 1874.

2. To keep up the proper supply of material to the Chief Engineer, to prevent delay to works, almost all the trucks conveying material loaded to Trichinopoly had to be returned empty, and the trucks of sleepers (averaging per truck only 2½ tons) help to give a poor account of the loads on trains.

3. The following are the reasons for the unsatisfactory result mentioned in the letter under reference, viz. :—

Goods.

Light loads of sleepers.

Return empty mileage of the same trucks.

Return empty Madras vehicles.

Small hauling power of engines on mail trains.

Return of empty converted covered goods trucks used on one journey for passengers.

Coaching.

Return empty M.R. carriage stock used for feast passengers.

Return empty coaching vehicles of other description.

Small stock of carriages necessitating use of converted covered goods trucks.

Small capacity of converted covered goods trucks for carrying passengers.

These are evils which we endeavor to remedy as much as possible, but the circumstances of the traffic, viz., want of back carriage when trucks are required back again to starting point renders it impossible, without causing disastrous delays which would militate seriously against the interests of the Company, to overcome.

These causes have always been a great drawback to us, but now that material is being conveyed the returns are made to appear much worse.

From the Chief Auditor, to the Agent of the South Indian Railway, dated Negapatam, 6th October 1875, No. 1,952 G.

I BEG to submit the following notes upon the letter from the India Office (in re-train service requiring reduction) which accompanied your letter, No. 3,091, of the 18th ultimo :—

*Proceedings of the Madras Government, Public Works Department,
22nd March 1876.*

Firstly, in taking the figures which the India Office officials have adopted, an actual reduction in the ton mileage carried, so far as goods are concerned, has been made something like 14½ per cent. by the exclusion of the traffic in railway material carried; and Secondly, that this traffic being excluded, "every allowance for the inequality of the up and down traffic" cannot have been made.

A reference to the Revenue Account for the half-year in question will show that the ton mileage of goods traffic amounts in gross to 3,956,304, of which 589,109 represents the portion due to railway materials. The inclusion of these figures raises the average train load of goods to about 23 tons, not a material increase certainly and one which, did not the conveyance of this material involve other considerations, would not invalidate the inference drawn by the Secretary of State. But this traffic prejudices to a great extent the useful effects of the train mileage, inasmuch as it entails a large percentage of empty vehicle mileage.

As you are aware the greater portion of our ordinary goods traffic is conveyed in covered goods trucks, and a comparison of the empty running of these vehicles, with the empty running of open goods trucks, in which material is carried, will to some extent show how the train mileage must necessarily be affected thereby. Under the former, the loaded vehicle mileage during the half-year amounted to 540,457, and the empty to 72,704, or in the proportion of 7.43 loaded vehicles to one empty. Of the latter, however (i.e., open trucks), the loaded mileage was 169,825 to 107,776 empty, or a proportion of about 1.5 loaded vehicles to one empty. The light weight of some of this material, viz., sleepers, which formed a large portion of the quantity carried, tended to lower the average load per vehicle and thus to some degree render unfavorable the results of the train service.

I cannot see upon what grounds this traffic has been excluded from consideration. The same, if not greater, facilities in the general interest of the Company have to be given to this; as to the public traffic, and far from it not entering into the general question it is, it appears to me, an important element in the unfavorable results which the Marquis of Salisbury deduces. But be this as it may, I feel confident that a reduction in our present train service would have a very unfavorable effect upon the net earnings of the Company. It might and probably would compare *prima facie* very favorably with the present more accommodating one, but I question whether the results would be more useful, either to the interests of the public, or those of the Company. With the traffic less developed than it now is, with far fewer passengers and higher fares in force, a smaller train service has been found not to meet the requirements of the public, and I doubt not that with less material for construction purposes to carry, the ordinary train service as now constituted will not give such unfavorable results as the Secretary of State considers it did during the half-year which he had under his review.

Nos. 344 & 345. ORDER THEREON, 22nd March 1876, No. 733.

RAILWAY, No. 31-A.

THE Secretary of State in calling attention to what appeared the small loads conveyed by trains on the South Indian Railway during the half-year ending 31st December 1874, as exhibited in the Revenue Accounts for that period, suggested for consideration whether the number of trains run might not be reduced, or economy in other directions effected. The subject was referred* for report by the Consulting Engineer, and the papers above recorded contain the results of his inquiries.

2. It appears that during the period in question the number of trains run over the whole line works out to an average of 2.379 daily each way. On the Arcunum-Conjeveram section the traffic was served by one train daily each way with occasional

*Proceedings of the Madras Government, Public Works Department,
22nd March 1876.*

specials for extra traffic, and it is considered that this service cannot be reduced without manifest inconvenience to the public. On the Erode-Negapatam section the time-table provided for 1.86 trains each way daily, and additional trains were run for the conveyance of railway material and for accumulated traffic occasioned in some measure by the increased speed at which the mail train was required to run. It is admitted by the Secretary of State that the total cost of working per train mile is small. The comparative statement which has been prepared by the Consulting Engineer shows that, notwithstanding the small carrying capacity of the goods vehicles in use, the useful effect of the South Indian Railway trains does not, on the whole, contrast unfavorably with the trains of other Guaranteed Railways. Indeed, the number of passengers per train was greater than that on any other line, and the passenger vehicles were well filled.

3. His Grace the Governor in Council is of opinion that, in the consideration of this question, sufficient allowance has not been made for the inequality of up and down traffic by which the empty vehicle mileage was much enhanced. Keeping this circumstance in view, and giving due weight to the fact that the description of goods vehicle in use is of small carrying capacity, the Governor in Council does not consider that the economical working of the line can be held to have been neglected during the period in question. It does not, moreover, seem practicable, having regard to the convenience of the public, to order at present any reduction of the small number of trains run. But when the Northern Extension shall have been brought into operation throughout, the question will be re-opened with the view of considering whether one train daily on the Trichinopoly-Erode section will suffice. The subject will be kept in view by the Consulting Engineer and brought forward in due course.

(True Extract.)

(Signed) G. W. WALKER, Major-General, R.E.,
Secretary to Government.

No. 346.

(DOCKET No. 734, dated 22nd March 1876.)

COPY of the above forwarded for the information of the Government of India in continuation of letter, No. 3,234, dated 16th November 1875.

(True Extract.)

Major-General, R.E.,
Secretary to Government.

Encl. F. C. Shunker.

81 are Copies

RAILWAY DEPARTMENT

CONSULTING ENGINEER'S OFFICE.

Madras, 18th February 1876.

No. 96.

From

LIEUT.-COLONEL J. H. M. SHAW-STEWART, R.E.,

Consulting Engineer for Railways,

To

MAJOR-GENERAL G. W. WALKER, R.E.,

Secretary to Government,

Public Works Department,

Fort Saint George.

SIR,

*Adverting to the Pro-
ceedings of this Government No. 3087 of the
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the working of the traffic on the South
Indian Railway during the half year
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subject*

*Agent's letter No 1194 of the 21st Jan'y/76.
Chief Manager's report No 64. 19057 of the 27th Sept/75
Chief Auditor's report No 64. 19522 of the 6th Oct/75*

subject.

2. Number of trains—The average number of trains run daily on this line, each way, during the period in question was 2.379. The ordinary train service on the Arcotum-Karivaram section could not well be reduced without inconvenience to the public, as it consisted of one train only each way daily; extra trains being run during festivals. On the Megapalam-Erode section, the acceleration of the speed of the trains carrying the mails necessitated the running of a few additional local trains for goods as occasion required, and a portion of the material for the Southern

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	Pies	Pies	Pies	Pies	Pies	Pies	Pies	Pies	Pies	Pies
3 rd class passenger	20.81	1.27	2.39	1.63	1.19	2.25	1.82	1.64	1.034	0.739
4 th class do.			-	-	-	1.15		-	1.086	-
Ton of goods	4.02	6.20	10.43	5.55	8.08	5.16	8.18	5.11	7.896	7.382

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possible to work the traffic more
economically and at the same time
with efficiency.

I have the honour to be
Sir

Yours most obedt Servt.
Muttuswami L. R. E.
Cons: Engineer for Railway

1890

No. 1194

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From
S. W. 1896
RAILWAY DEPARTMENT.
No. 1321

To
The Secretary to Government,
P. W. Department,
Fort Saint George.

Date 1876
Recd. 21/5
No. 96
E. L. V.

70

for the information
of Georgetown
correspondence
on the subject
of the robbery
of the baggage
on the S. & O.
during the last year
enclosed 31st. Dec/44

South Indian Railway

Half year ending	All trains				Passenger trains				Goods trains				Total number of trains per day each way	Total number of tons per day each way
	Traffic train miles	Number of passenger for train	Class of goods for train	Weight of train and tender	Average number of vehicles in a train	Number of passenger due to passenger	Number of passenger per passenger train	Freight tonnage in a train	Total number of vehicles in a train	Storage number of vehicles in a train	Number of train miles due to goods	Number of goods per goods train	Number of vehicles in a goods train	Average number of tons of freight in a goods vehicle
1871	121,801	104	20.1	112.9	15.4	50,688	250	2.5	15.4	19.7	71,013	34.4	15.4	2.245
1872	126,544	117	20.0	115.9	14.8	60,335	247	1.8	14.8	19.5	61,579	36.1	14.8	2.633
1873	121,158	113	23.6	120.0	15.3	57,559	265	1.6	15.3	20.0	69,399	41.2	15.3	2.780
1874	123,560	158	24.2	130.7	16.6	58,699	332	1.4	16.6	22.7	64,861	46.1	16.6	2.873
1875	182,161	147	33.6	139.7	17.0	70,294	381	1.4	17.0	25.2	111,867	52.8	17.0	3.313
1876	133,030	149	26.6	140.0	17.6	84,892	340	1.4	17.6	23.6	88,338	57.4	17.6	3.017
1877	144,476	144	25.6	131.6	16.9	61,174	341	1.4	16.9	22.7	83,302	44.4	16.9	2.705
1878	162,852	164	24.3	131.5	16.8	79,124	338	1.7	16.8	22.9	83,668	47.3	16.8	2.829

Other Railways in India for half year ending 31st December 1874.

1280	2,871,860	72	69.0	172.9	247.0	25.9	241,226	259	5.2	22.6	13.5	2,000,134	99.0	24.3	3.480	1.850	4,247	6,097	
224	2,220,000	63	42.9	46.0	113.0	194.2	21.3	91,601	162	5.3	18.4	12.3	12,667	70.3	23.5	3.088	1.111	1,537	2,625
110	757,400	33	82.5	84.9	132.8	197.7	22.1	26,331	94	3.0	9.6	16.2	49,409	95.5	28.8	3.330	.657	1,220	1,841
534	5,340,000	91	39.0	45.5	155.4	200.9	24.5	32,923	153	3.4	18.2	10.3	22,476	96.1	41.0	2,320	1.615	1,102	2,717
540	3,104,114	145	24.8	38.0	155.5	193.5	23.3	152,747	245	2.7	22.3	15.1	157,967	57.7	24.2	2,432	.769	.795	1,564
158	2,766,533	95	65.0	71.4	156.0	284.4	23.9	152,260	170	3.2	12.9	14.6	122,303	147.9	34.8	3,974	2.653	2,105	4,758
1266	1,644,380	63	42.9	47.6	108.4	156.0	18.3	77,506	134	2.5	13.3	13.8	86,374	81.1	22.9	3,910	1.662	1,866	3,530
428	4,226,690	130	32.3	41.0	124.2	168.2	19.6	24,339	223	2.8	12.4	19.3	19,537	77.9	26.8	3,009	1.570	1,114	2,684
1858	9,571,233	74	31.4	36.6	96.6	133.2	15.8	34,708	203	2.4	15.0	17.2	60,615	49.4	16.2	3,241	1.102	1,931	3,033

Note

The mileage of mixed trains is divided between passenger and goods in the proportion of the resulting mileages derived from the average numbers of vehicles in passenger and goods trains respectively.

Coaches are included in the average number of vehicles in trains.

The traffic on the Bombay lines being lighter in the second than in the first half of the year, the results here shown are somewhat below the average.

Madras

8th February 1878

at Hol. R.R.

Cons. Engineer for Railways

No. 1194

GREAT SOUTHERN OF INDIA RAILWAY.

AGENTS OFFICE,

NEGAPATAM,

21 January

1876

From

THE AGENT,

Great Southern of India Railway,

To

The Consulting Engineer for Railways
Madras.

SIR,

Your letter No 826 of the 19th of November last, was received during my absence from India. I find that Mr Logan made inquiry regarding the representations contained in Mr Louis Mallet's letter, and that the Traffic Manager and Chief Auditor reported thereon. Copy of their reports I attach for your information. I do not think it would have been possible to have waited without great delay (in a less number of trains than were employed) the traffic which was hauled during the half year ending the 31st December 1874. Nor do I think it would have been waited, with efficiency more economically. The India Office letters remark that the cost is small.

Sufficient allowance has not been made by Mr Louis Mallet for the inequality of up and down traffic which necessitated the running of a large amount of empty vehicle mileage. Table of your Review for the period in question shows that the average weight of our trains (exclusive of engines, tenders, and breaks) was 130 tons, of which upwards of 95 tons represented dead load.

I have the honour to be,

Your most Obedt Servant

William St Belton

Agent

Dec 12 Mallet 1874
enclosed 31st Dec 1874
1874

South Indian Railway. Letter from the Traffic Manager to
the Agent, dated Trichinopoly 27 September 15. No 10067
9296

Review of this Coy for the second half of 1874.

With reference to your letter No 3100 enclosing extract
of letter from the India Office. The apparently small load
of Trains is accounted for by the large empty mileage we were
obliged to run during the half year ending December 1874.

To keep up the proper supply of material to the Chief
Engineer, to prevent delay to works, almost all the Trains conveying
material loaded to Trichy. had to be returned empty and the
Trucks of sleepers (averaging per Train only 2 1/2 tons) help to give
a poor account of the loads on Trains.

The following are the reasons for the unsatisfactory
result mentioned in the letter under referenced. viz.

Goods.
Light loads of Sleepers.

Return empty mileage of the same Trains

Return empty Madras Vehicles

Small hauling power of Engines on Mail Trains.

Return of empty converted Covered Goods Trucks used on
one journey for passengers.

Coaching.

Return empty M. & carriage Stock used for Fast passengers.

Return empty coaching vehicles of other descriptions.

Small Stock of carriages necessitating use of converted Covered
Goods Trucks.

Small capacity of Converted Covered Goods Trucks for carrying
passengers.

These are evils which we endeavour to remedy as
much as possible but the circumstances of the Traffic viz.
want of back carriage when Trucks are required back again
to starting point renders it impossible, without causing
disastrous delays which would militate seriously against
the interests of the Company, to overcome.

From
the Agent
to the Chief Engineer
for Madras
Dated 27/9/74
1874
No 10067
9296
The Traffic Manager
South Indian Railway
Trichinopoly
27 September 15
No 3100
Review of this Coy
for the second half
of 1874

manufactures &c. have always been a great draw back to us
but since that material is being conveyed the returns are
made to appear much worse.

Yours faithfully

(signed) W. H. Stanton

Traffic Manager

(Enc. 1)

South Indian Railway
Chennai
20th September 1875
The Secretary
to the Board of Directors
of the South Indian Railway

South Indian Railway. Letter from the Chief Auditor
to the Agent, dated Mysapattam 6th October 1875 & No 1952.

I beg to submit the following notes upon the
letter from the India Office (in re train service requiring re-
duction) which accompanied your letter No 3091 of the 18th
Inst.

Firstly. In taking the figures which the India
Office Officials have adopted: an actual
reduction in the ton mileage carried, so far
as goods are concerned, has been made some-
thing like 14 1/2 percent by the exclusion of
the traffic in railway material carried
and

Secondly - that this traffic being excluded, every
allowance for the inequality of the up and
down traffic cannot have been made.

A reference to the Revenue Account for the half year
in question will show that the ton mileage of goods traffic
amounts in gross to 2,956,324 of which 589,109 represents the
portion due to Railway material. The inclusion of these figures
raises the average train load of goods to about 25 tons, not
a material increase certainly and one which, did not the
conveyance of this material involve other considerations,
would not invalidate the inference drawn by the Secretary
of State. But this traffic prejudices to a great extent
the useful effects of the train mileage, inasmuch as it entails
a large percentage of empty vehicle mileage.

As you are aware the greater portion of our ordi-
nary goods traffic is conveyed in covered goods trucks
and a comparison of the empty running of these vehicles
with the empty running of open goods trucks, in which
material is carried, will to some extent show how the train
mileage must necessarily be affected thereby. Under the
former the loaded vehicle mileage during the half year

amounted to 550,457 and the empty to 72,704 or in the proportion of 7 1/2 loaded vehicles to 1 empty. Of the latter however (i.e. open trucks) the loaded mileage was 169,825 to 107,776 empty - or a proportion of about 1.5 loaded vehicles to 1 empty. The light weight of some of this material or pieces, which formed a large portion of the quantity carried, tended to lower the average load per vehicle and thus to some degree rendered unfavorable the results of the train service.

I cannot put upon what grounds this traffic has been excluded from consideration. The point, if not greater facilities in the general interest of the Company have to be given to this, as to the Public traffic, and far from it not entering into the general question at all, it appears to me an important element in the unfavorable results which the Marquis of Salisbury deduced. But be this as it may, I feel confident that a reduction in our present train service would have a very unfavorable effect upon the net earnings of the Company. It might and probably would compare *prima facie* very favorably with the present more accommodating one, but I question, whether the results would be more useful, either to the interests of the public or those of the Company. With the traffic less developed than it now is - with far fewer passengers and higher fares in force, a smaller train service has been found not to meet the requirements of the public, and I doubt not that with less material for construction purposes to carry, the ordinary train service as now constituted will not give such unfavorable results as the Secretary of State considered it did during the half year which he had under his review.

M 1321/96
3

(True Copy)

Agents Office
Buckingham Palace
7th October 1895

William Webb

Station Agent

No 733

Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 22nd March 1876

Read the following:—

From the Consulting Engineer
for Railways.

(Order No 96 dated
18th February 1876.)

The Secretary of State is
calling attention to what appeared
the small loads conveyed by
trains on the South Indian
Railway during the half year
ending 31st December 1875 as
exhibited in the Revenue
Accounts for that period, suggests
for consideration whether the
number of trains run might
not be reduced, or economy
in other directions effected.
The subject was referred for
report

* G.O. No 3087 4th
November 1875

report by the Consulting Engineer,
and the papers above recorded
contain the results of his
enquiries. —

It appears that during
the period in question the
number of trains run over
the whole line works out to
an average of 2.379 daily
each way. On the Arcunum
- Conjivram section the
Traffic was served by 1
train daily each way with
occasional specials for
extra traffic; and it is
considered that this service
cannot be reduced without
manifest

manifest inconvenience to the
public. On the Erode - Megal-
palam section the Timetable
provided for 1.86 trains each
way daily, and additional
trains were run for the
Conveyance of Railway
material, and for accumu-
lated traffic occasioned in
some measure by the increased
speed at which the Mail
train was required to run.
It is admitted by the
Secretary of State that the
total cost of working per
train mile is small. The
Comparative Statement
which

which has been prepared
by the Consulting Engineer
Shows that notwithstanding
the small carrying capacity
of the goods vehicles in
use the useful effect of the
Sault Ste. Marie Railway trains
does not on the whole
contrast unfavorably
with the trains of other
guaranteed Railways -
Indeed the number of
passengers per train was
greater than that on any
other line, and the passenger
vehicles were well filled. -

This.

This Grace the Governor
in Council is of opinion
that in the considerations
of this question sufficient
allowance has not been made
for the inequality of up and
down traffic by which the
empty vehicle mileage was
much enhanced. Keeping
the circumstances in view,
and giving due weight
to the fact that the
descriptions of goods in
vehicle in use is of small
carrying capacity, the
Governor in Council does
not consider that the

economical

economical working of the
line can be held to have
been neglected during the
period in question - It does
not moreover seem practicable,
having regard to the convenience
of the public, to order at
present any reduction of
the small number of trains
run - But when the Northern
Extension shall have been
brought into operation -
throughout the question will
be reopened with the view
of considering whether one
train daily on the Trichin-
opoly. Erode section will

Suffice

suffice - The subject will
be kept in view by the
Consulting Engineer and be
brought forward in due course

(Here Enter No. 734
dated 22 March 1876)
No 734

Copy of the above forwarded
for the information of the
Government of India in
continuation of letter No. 3284 of
16 November 1875 -

To The Secretary of State
for India

My Lord Marquis

On the receipt of
your Lordship's despatch
of the 23 September 1875
No. 6 Railways on the
subject of the economical

working

Impd 8 April 76

C. E. for Rys Impd. 8 April 76

working of the South Indian
Railway suggested by the
results exhibited on the
Revenue Accounts of that
Company for the half year
ending 31st December 1874
We caused enquiries to
be made into the circumstances
of the traffic and the
amount of accommodation
provided for its conveyance;
and we have now the
honor to submit the results
for your Lordships informa-
tion. The papers which
are now transmitted will,
it is hoped, convince your
Lordships

Very truly
yours
22 March 75

Lordships that the economical
working of the line has not
been lost sight of by the
local authorities, and
that no immediate reduction
of the number of trains run
is advisable. The subject
will however be kept in
view, and when the Northern
Extension now under
construction shall have
been opened throughout
the matter will be again
brought forward and
such measures taken as
may be considered
necessary. —

C. W.

Q. C. 11 January 1876 at 56

" 16. Nov 1875 " 328712

" 6. do " " 3185

" 12. " " " 3173

" 12. " " " 3087

My despatch no 5 of 16 June 75

Q. C. 5 June 75 no 1895 with Deer elect

" 18 Deer 74 no 3540

" 29. April 74 no 1105

" 14 Deer 75 " 3538

✓ Transmitted papers
showing the results in the
steps taken for the in-
roduction of economy
in working the traffic on
the S. D. Ry

343 @ 346-

See 17-3-76. 21-3-76

25-2-76

Oct. 1870 Madras.
PUBLIC WORKS.

the Comd^g Eng^r for the

23/3

Dated

Issued

Recd

For

G. O. 22nd March 1876, No. 733
784

Nos. 343 @ 345

*Forwarding copy of
Proceedings on letter from
the Comd^g Eng^r sub.
mitting Report on the
working of the traffic
on the S. Ily during
the half year ended
31 Decr 1874*

*Report on the working
of the traffic on the
S. Ily during the half
year ended 31 Decr/74
Passing Orders as letter
from the Comd^g Eng^r
submitting the*

*Cont^d in Report
27 Aug 76*