(1) Number of pages 40

(2) Date of repair 6. 8. 86

(3) Initials of the Referencer Lav.

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W DEPARTMENT

G.O. No. 2771 & 2772 W — Press.
B.P. No. — Mis.

Dated 6. 7 - 1878 — Rs. —

Not to be folded or roughly handled.

V - S . M

Archives I—10,006—19-4-79.

2772 W
3
1

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

6th July 1878, No. 2,771 W.

Buildings and Roads.
Civil Works.

Read the following papers:—

No. 54. From Captain G. F. L. MARSHALL, R.E., Officiating Assistant Secretary to the Government of India, Public Works Department, (Civil Works—Telegraph), to the Secretary to the Government of Madras, Public Works Department, dated Simla, 20th April 1877, No. 110 T.

THE Government of India proposes to undertake some observations of earthquake shocks throughout the country, which observations will be carried on, under instructions to be hereafter issued, at certain selected Telegraph stations, under the supervision of the Telegraph Officers. I am directed to inquire whether an inspection of records would suggest any Telegraph stations in Madras where it would seem desirable to institute such observations.

No. 54-A. From N. R. POGSON, Esq., Government Astronomer and Meteorological Superintendent, to the Secretary to Government, Public Works Department, dated Madras, 15th June 1878.

WITH reference to your memorandum, No. 2,583, dated Fort St. George, 13th June 1878, and subsequent reminders upon the subject of earthquakes in India, I have the honor to express my deep regret that it should so long have remained unanswered. The simple reason was that I wished to take it up thoroughly and make some definite suggestions for securing the desired observations at certain stations in the Presidency, but severe pressure of other work and failing health have hitherto prevented me, and I now feel that, pending my probably inevitable and not far distant departure from India, it is worse than useless for me to undertake fresh duties when those already in hand are so far beyond my means of satisfactory accomplishment. More than a dozen years back I and my able friend Colonel W. K. Worster, R.A., since retired, talked over Seismometers of all kinds, from the primitive marked treacle basin, the graduated N.S. and E.W. ninepins, the long pendulum with point hanging in some moistened powder capable of receiving and retaining impressions of the deviations of the pendulum, to the most expensive self-registering apparatus suggested; but we always arrived at the same conclusion, viz., that no instrument of the kind yet contrived would be reliable in the hands of the persons to whose care it must be entrusted. Unlike meteorological instruments, of which frequent systematic readings are required, or even rain gauges which we know too often get neglected, in India especially, a Seismometer, yielding only perhaps one result in the course of some years, would inevitably be forgotten and out of order just when wanted. Perhaps of all kinds the most suitable would be a moderately heavy pendulum, four or five long, hung by a small wire, with a light spring pencil resting on a card below. This, if enclosed between four glass sides, would remain

in order for years and yet would not fail, when required, to register the direction and strength of any shock which might occur. The only stations in the Madras Presidency at which I think it would really be worth while to set up such an instrument are Salem, Ongole, and perhaps Chicacole also, but there may be others yet more important with which I am unacquainted. I have intended for several years past to collect all the accounts of earthquakes in the Madras Presidency within the last twenty years and to communicate them in a report to the British Association of Science, in which you are doubtless aware there is always a section devoted to the subject. If possible my Assistant (my daughter) will have such a report in readiness for the British Association Meeting of 1879.

No. 84-D. *Statement of Earthquakes on Record in the Madras Presidency from the Year* 1865 *to* 1877.

District.	Locality.	Date.	Remarks.
Kistna	Vinkondah ...	20th Jan. 1865.	Direction—North-east to south-west.
Coimbatore ...	Coimbatore ...	24th June „ ...	Direction—South to north. Duration—Four seconds.
		10th July „ „	Direction—South-west. Duration—Four minutes.
Kistna	Nandigama ...	1st Sept. „ ...	Direction—West to east.
	Vinkondah ...	6th Oct. 1866 ...	Do. —East to west. Duration—Few seconds.
North Arcot ...	Chittoor ...	4th „ „ „	
Vizagapatam ...	Nursepatam ...	3rd Jan. 1867.	Direction — South to north. Duration—One second.
Kistna	Kommalapad ...	6th „ „	Direction—North-west to south-east. Duration—One minute.
South Arcot ...	Vinkondah ...	3rd July „ ...	Direction—West to east. Duration—Five seconds.
	Villapuram ...	20th Sept. „ ...	Direction—West to east. Duration—Two minutes.
	Chittoor ...	4th Mar. 1868 ...	Direction—East to west. Duration—Few seconds.
	Do. ...	12th May „ ...	Direction—North-east to south-east.
North Arcot ...	Chendragherry ...	8th Nov. „ ...	Direction—From the north.
	Tripatore ...	7th Jan. 1869 ...	Do. —North-east to south-east.
	Royacottah ...	8th „ „ ...	
	Do. ...	7th „ „ ...	
	Jaksandram ...	6th „ „ ...	Direction—East to west.
	Kistnaghirry ...	5th „ „ ...	Direction—West to east.
	Do. ...	1st Sept. „ ...	
	Ongole ...	2nd „ „ ...	
Nellore ...	Do. ...		Direction — East to west. Duration—Twenty seconds.
	Dharampury ...		
	Tripatore ...		
	Kistnaghirry ...	24th Dec. „ ...	
	Utergherry ...		
Salem	Salem ...		
	Sheveroys ...		
	Ramachendrapur ...	19th „ „	
	Pittapur ...	19th „ „ ...	Direction—East to west. Duration—Forty seconds.
Godavery ...	Rajahmundry ...	31st Jan. 1870 ...	Direction—East to west.
	Narsipatam ...	30th Nov. „ ...	Do. —West to east. Duration—One minute.
Vizagapatam ...	Madnapully ...	6th Aug. 1871 ...	
Cuddapah ...	Tripatore ...		
Salem	Kamenellore ...		
Godavery ...	Chintalapudy ...		

Statement of Earthquakes on Record in the Madras Presidency from the Year 1865 *to* 1877—*contd.*

District.	Locality.	Date.	Remarks.
Vizagapatam ...	Chipurupilli ...	27th Sept. 1871 ...	Direction—North to south.
	Vizianagram ...		
	Vizagapatam ...		
Ganjam ...	Chicacole ...	27th „ „ ...	Direction—North to south.
Godavery ...	Tuni ...	24th Jan. 1873 ...	Do. —East to west. Duration—Two minutes.
Salem ...	Utengherri ...	29th „ „ ...	Direction—West to east.
	Vizagapatam ...		
	Bimlipatam ...		Do. —North-east to south-east.
Vizagapatam ...	Survasiddy ...	24th „ „ ...	
	Rayada ...		
	Narsipatam ...		
	Ongole ...	5th June „ ...	Direction—South to north.
Nellore ...	Do. ...	9th „ „ ...	
	Lilepalle ...	28th „ „	
Salem ...		2nd Aug. „ ...	Direction—North-east to south-west.
	Ongole ...	23rd Oct. „ ...	Direction—West to east. Duration—Two seconds.
Nellore ...	Do.	24th „ „ ...	
	Pennagaram ...	13th Jan. 1874 ...	Direction—From the north.
	Oosoor	21st „ „	
Salem ...	Sunkerydroog ...	20th „ „ ...	Direction—North-east to south-west. Duration—Sixty-five seconds.
Nellore	Ongole	19th „ „ ...	Direction—From north southwards. Duration—Three minutes.
	Oosoor	20th „ „ ...	Direction—North-west to south-east.
	Utengherri ...	20th „ „ ...	Direction—South to north. Duration—Twenty seconds.
Salem	Caveripatnam ...	20th „ „ ...	Direction—West to east. Duration—One minute.
	Ongole	31st „ „ ...	Direction—West to east. Duration—Three seconds.
Nellore		15th April „	
Kistna	Bezwadah ...		Direction—East to west. Duration—Five minutes.
	Annamallay ...		
	Katoor	8th July „ ...	
Coimbatore ...	Vettakaranpudur...		
	Somandoray ...		
	Mogallur	16th Sept. „ ...	Direction—South to north. Duration—Two minutes.
Nellore		18th „ „ ...	Direction—West to east.
Salem	Mochery	2nd Dec. „ ...	Direction—North-east to south-west—Duration One hour.
	Ongole		
Nellore ...	Do.	22nd Nov. „ ...	Direction—From west. Duration—Fifteen seconds.
	Tripatore	13th Feb. 1875 ...	
Salem ...	Kistnagherri ...	13th „ „ ...	Direction—South to north.
	Nandigama ...	21st Jan. „	
Kistna ...	Takkelapad ...		Do. do.
	Tripatore	1st May „ ...	
	Caveripatnam ...	1st June „ ...	Do. do.
Salem ...	Tripatore		Do. West to east. Duration —Ten seconds.
	Ahtur	17th Aug. „ ...	
	Yaithapur ...		Direction—South-west to north-east. Duration—Two minutes.
	Vinkondah ...	23rd Sept. „ ...	
Kistna ...	Guntipalli ...		Direction—North-east to south-west. Duration Two seconds.
Vizagapatam ...	Vizagapatam ...	4th Feb. 1876 ...	Direction—North-east to south-west.
Nellore	Ongole	20th Mar. „ ...	

Statement of Earthquakes on Record in the Madras Presidency from the Year 1865 to 1877—contd.

District.	Locality.	Date.	Remarks.
Nellore ...	Ongole	25th Mar. 1876. 20th „ „ 28th „ „	
	Do.	5th July „ 14th „ „	
Salem	Tripatore	6th Oct. „ ...	Direction—North to south. Duration—Two minutes.
Ganjam ...	Vishnachakram ...	19th „ „ ...	Direction—East to west.
	Putta Chicacole ...	23rd „ „ ...	
Nellore ...	Ongole	4th Dec. „	
	Kandukur ...	9th „ „ ...	Direction—North to south. Duration—Two minutes.
	Chundi		
	Kanigiri	14th „ „ ...	Direction—East to west. Duration—Ten minutes.
Kistna	Vinkondah ...	20th Feb. 1877 ...	Direction—East to west. Duration—Two minutes.
Ganjam ...	Berhampore ...	3rd Mar. „ ...	Direction—West to east. Duration—Three seconds.
Nellore	Kavali	23rd „ „ ...	Direction—West to east. Duration—Ten seconds.
Kistna	Narasarowpett ...	5th Feb. „ ...	Direction—West to north. Duration—Six seconds.

No. 55. ORDER THEREON, 6th July 1878, No. 2,771 W.

ORDERED that the following letter be sent:—

(Here enter No. 2,772 W, dated 6th July 1878.)

(True Extract.)

(Signed) E. A. FOORD, Colonel, R.E.,
Secretary to Govt., P.W.D.

To the Public Department.

Exd. T. D. Ryan.
Spare Copies

BUILDINGS AND ROADS.
CIVIL WORKS.

Pubd. of (1873) Madras.

PUBLIC WORKS.

To

THE PUBLIC DEPARTMENT.

Pubd. 4 July 1878

Pubd.

Pubd.

G. O. 6th July 1878, No. 2772 W.

JULY.

Nos. 54-55.

Read—Ordered that the Govern
be addressed regarding the
by them with reference
proposed to be taken
as stations

71-2772 W
4

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Civil Works.

No. 2,772 W.

No. 56.

FROM

THE SECRETARY TO THE GOVERNMENT OF MADRAS,
Public Works Department,

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
Public Works Department.

SIR,—I am directed to acknowledge the receipt of your letter No. 110 T, dated 20th April 1877, and subsequent reminder on the subject of observations of earthquake shocks which it is proposed to take at certain selected Telegraph stations.

2. In reply I am to forward the accompanying copy of a letter from the Government Astronomer at Madras, dated 15th June of this year, in which Mr. Pogson offers suggestions as to the best means for taking the observations and indicates the places which he considers most favorable for the purpose.

3. I am also to forward a tabulated statement of all earthquakes on record in the Proceedings of this Government for the past twelve years. This may aid the Government of India in arriving at a decision as to the best places for future observations.

I have the honor to be,
Sir,
Your most obedient servant,

Colonel, R.E.,
Secretary to Govt., P.W.D.

OOTACAMUND,
6th July 1878.

Exd. T. D. Ryan.
Spare Copies

4

Tabulation

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1878) Madras.

PUBLIC WORKS.

To

THE SECRETARY TO THE
GOVERNMENT OF INDIA.

Dated 6th July

Issued

Recd. *Encl.*

C. O., 6th July 1878, *No.* 2,772 W.

JULY.

No. 56.

FORWARDING information required in connection with observations of earthquakes proposed to be taken at certain Telegraph stations.

All communications should be addressed to the Secretary.

No. 110 S.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

Civil Works
Telegraph.

To

The Secy to the Govt of Madras
in the P. W. Deptt

Simla 20th April 1877.

Sir

I am directed to forward for the information of the Madras Government a copy of a letter No. 1,111 dated 19th instant from the Secretary to the Government of India in the Home Department, and to request that the observations of earthquakes proposed to be taken at certain Telegraph stations may be carried out in accordance with the instructions which will be issued hereafter.

I have the honor to be
Sir
Your most obedient Servant
H. B. Hobday
Secy to the Govt of India
in the P. W. Dept.

an inspection of records would suggest any telegraph stations in Madras where it would seem desirable to institute such observations

P.W.D.
APR77
No

From
The Govt of India

I have the honor to be, dated 26th April/77
No 110 P.

Sir,
Your Most Obed't Servant

G.F.L. Marshall Capt'n R.E.
Offg Asst Secy to the Govt of India

G.O. No 975 of 20th March/77.
" " 3381 of 12th Dec'r/76.
" " 3027 of 11th Nov'r/76
" " 823 of 31 March/76
" " 640 of 20th June/73 Rev. Dept
" " 738 of 16th July/73

Madras Observatory, June 15th. 1876

From
N. R. Pogson, Esq.,
Government Astronomer and Meteorological Superintendent.

To
Col. E. L. Ponch R.E.
Secretary to Government P.W.D.

Sir,

With reference to your Memorandum No 2583 dated 13th April, 1875 and subsequent reminders upon the subject of Earthquakes in India, I have the honor to express my deep regret that it should so long have remained unanswered. The simple reason was that I wished to take it up thoroughly and make some definite suggestions for securing the desired observations at certain Stations in the Presidency, but severe pressure of other work and failing health have hitherto prevented me, and I cannot feel that pending my probably inevitable and not far distant departure from India it is worse than useless for me to undertake fresh duties, when those already in hand are so far beyond my means of satisfactory accomplishment. More than a dozen years back I and my able friend Colonel C.K. Worster R.A., since retired, talked over Seismometers of all kinds; from the primitive marked treacle basin, the graduated R.S. and E. Co. nine-pins, the long pendulum with point hanging in some moistened powder capable of receiving and retaining impressions of the oscillations of the pendulum, to the most expensive self registering apparatus suggested, but we always arrived at the same conclusion, viz., that no instrument of the kind yet contrived would be reliable in the hands of the persons to whose care it must be entrusted. Unlike meteorological instruments of which frequent systematic readings are required, or even rain gauges which we know too often get neglected in India especially, a Seismometer, yielding only perhaps one result in the course of some years, would inevitably be forgotten and out of order

Home. The Government Observatory Madras
No. 242
Six weeks to Government Departments

Statement of Earthquakes on record in the Madras Presidency from the year 1665 to 1877.

District	Locality.	Date.	Remarks.
Kistna	Vinkondah	20 Jan/65.	
Coimbatore	Coimbatore	24th June/65	Direction - North East to South West.
Kistna	Nandigama	10th July/65	Direction - South to North. Duration - Four seconds.
Do.	Vinkondah	1 Sep/65	Direction - South West. Duration - Four minutes.
North Arcot	Chittur	6th Oct/66.	Direction - West to East.
Vizagapatam	Nurcipatam	4 — do —	Direction - East to West. Duration - Few seconds.

12.22.63: 22.5.78: — 2583 - 18.6.78

Received 6.7.78. Replied 6.7.78.
No. Only 22-6-78. Dist. 6.7.78.
Cir. 24.6.78.

Queries in regard to Earthquake stated in Fraser's Encyclopedia — Time mentioned is Astronomical Greenwich —

Madras Observatory, 1875 Time 15 P.M.

From
The Astronomer Royal
To
Dr. Norman, M.A.
Director of Observatories
Madras.

most serious remarks. Perhaps of all kinds the most unfavorable would be a moderately heavy rainfall, even a slight one, during January, February or March would be considered serious from setting out a canal below. Rains of moderate force and of short duration, coming for years and years after the execution of such work, would be regarded as the most favorable circumstance that could occur. — Of the earthquakes on the Malabar Coast within the last eight or ten years, only two have been felt at Madras, Cuddalore and Pondicherry, and even these were but slight. Earthquakes are unknown in Ceylon, but there may be others not recorded. — Hurricanes also, but these are unfrequent. — I am unable to offer any opinion as to whether the Madras Presidency is subject to earthquakes or not. — I have intimated the receipt of your letter to the Madras Observatory for the information of the Astronomer there, and to enquire whether the Astronomer would be willing to undertake the duties (many kinds) under these circumstances. — I have the honor to be Sir, Your most obedient Servant, W. S. Jacob, Lieutenant Astronomer.

Dated Observatory, 1875 Time 15 P.M.

Queries in regard to Earthquake stated in Fraser's Encyclopedia — Time mentioned is Astronomical Greenwich —

Received 6.7.78. Replied 6.7.78.
No. Only 22-6-78. Dist. 6.7.78.
Cir. 24.6.78.

Kistna	Kommalapad	3d	Jan/69		
Do	Vinkondah	6"	do		
South Arcot	Villapuram	3d	July/69	Direction. South to North.	Duration. One Second.
North Arcot	Chittaor	29	Sep/69	Direction. South West to South East.	Duration. One minute.
Do	Do	4	May/68	Direction. West to East.	Duration. Four Seconds.
Do	Ellendacherry	12"	May/68	Direction. West to East.	Duration. Two minutes.
Salem	Tripatore	8	Nov/68	Direction. East to West.	Duration. Four Seconds.
Do	Rayacottah	7	Jan/69	Direction. North East to South East.	
Do	Do	8	do	Direction. From the North.	
Do	Saksandaum	7	do	Direction. North East to South East.	
Do	Kistnagherry	6"	do	Direction. East to West.	
Do	Do	8	do		
Nellore	Ongole	1	Sep/69	Direction. West to East.	
Do	Do	2	do		

Salem	Dharampury Tripatore Kistnagherry Ulengherry Salem Shervaroys	24"	Dec/69	Direction. East to West.	Duration. Twenty Seconds
Godaverry	Ramachendapur Pittapur Rajahmundry	19	do		
Vizagapatam	Nareipatam	19	do	Direction. East to West.	Duration. Forty Seconds
Guddapah	Brodrapully	31"	Jan/70	Direction. East to West.	
Salem	Tripatore Kamenellore	30	Nov/70	Direction. East to West.	
Godaverry	Chintalapudy	6	Aug/71	Direction. West to East.	Duration. One Minute
Vizagapatam	Chipurapullie Vizianagram Vizagapatam	27	Sep/71	Direction. North to South.	

5

27

Ganjam	Chicacole	27 Sept/71	Direction. North to South.
Godavery	Tuni	24 Jan/73	Direction. East to West. Duration. Two minutes.
Salem	Ulengherri	29 — do —	Direction. West to East.
Vizigapatam	Vizigapatam Bimlipatam Survasiddy Rayadah Nakeipatam	24 — do —	Direction. South East to South East
Nellore	Bogole	5 June/73 9 June/73	Direction. South to North
do	do	28 June/73	
Salem	Lilepalle	22 Aug/73	Direction. North East to South West
Nellore	Bogole	23 Oct/73 24 — do —	Direction. West to East. Duration. Two seconds.

Nellore	Bogole	13 Jan/74	Direction. From the North.
Salem	Pennagaram Dosseor	21 do	
do	Sunkerydroog	20 do	Direction. North East to South West. Duration. 65 Seconds.
Nellore	Bogole	19 do	Direction. From North. Southwards. Duration. Three minutes
Salem	Dosseor	20 do	Direction. North West to South East.
do	Ulengherri	20 do	do. South to North. Duration. Twenty Seconds.
do	Caveripatnam	20 do	do West to East. Duration. One Minute.
Nellore	Bogole	31 do	do West to East. Duration. Three Seconds.
Kistna	Bezwadah	15 April/74	
Coimbatore	Annamallay Kapoor Vetta Karanpudur Sennandoray	8 July/74	Direction. East to West. Duration. Five minutes.

Nellore	Magalluri	16 Sept/74	Direction. South to North.	Duration. Two minutes.
Salem	Mechiry	16 —do—	Do.	West to East.
Nellore	Ongole	22 Dec/74	Do.	North East to South West. Duration. One hour
Do	Do	22 Nov/74	Do.	From West. Duration Fifteen Seconds.
Salem	Tripatore	16 Feb/75		
Do.	Kistnagherri —do—		Direction. South to North.	
Kistna	Nandigama Tekkellapad	21 Jan/75		
Salem	Tripatore Caveripatnam	1 May/75	Direction. South to North.	
Do	Tripatore	1 June/75	Do.	South to North
Do	Atchur Vaitheapur	17 Aug/75	Do.	West to East. Duration. Ten Seconds.

Kistna	Vinkondah Gunthpalli	23 Sept/75	Direction.	South West to North East. Duration. Two minutes.
Vizigapatam	Vizigapatam	4 Feb/76	Do.	North East to South West. Duration. Two Seconds.
Nellore	Ongole	20 Mar/76	Do.	North East to South West.
Nellore	Ongole	25 —do—		
		26 —do—		
		28 —do—		
Do.	Do.	5 July/76		
		14 —do—		
Salem	Tripatore	6 Oct/76	Direction.	North to South. Duration. Two minutes.
Guntur	Vishnuchakram	19 —do—	Do.	East to West
Do.	Cutta Chicacole	23 —do—	Do.	Do
Nellore	Ongole	4 Dec/76		
Do	Kandukur	9 —do—	Do.	North to South. Duration. Two Minutes.
	Chundi			
Do.	Kanigiri	14 —do—	Do.	East to West. Do. Ten minutes

List of Orders from which Statement was compiled.

2172
10

142	3d	Feb/65	Pub	Dept.
1609	13th	July/65	Rev	Do
2041	30	Aug/65	Do	
2360	29	Sept/65	Do	
2936	30	Oct/66	Do	
2993	5	Nov/66	Do	
212	22	Jan/67	Do	
950	5	Aug/67	Pub	Dept
2367	8	Oct/67	Rev	Dept
332	13	Mar/68	Pub	Dept
1402	19	May/68	Rev	Dept
2963	25	Nov/68	Do	
238	27	Jan/69	Do	
116	——do——		Pub	Dept
2638	23	Sept/69	Rev	Dept
119	22	Jan/70	Do	
120	——do——		Do	
159	4	Feb/70	Do	
295	25	——do——	Do	
339	10	Mar/70	Do	
100	14	Jan/71	Do	
1550	7	Sept/71	Do	
1813	18	Oct/71	Do	
1814	——do——		Do	
173	17	Feb/73	Pub	Dept
211	24	——do——	Rev:	Do
228	27	——do——	Do	
640	20	June/73	Do	
738	16	July/73	Do	
742	17	——do——	Do	
941	3d	Sept/73	Do	
1236	5	Nov/73	Do	
162	4	Feb/74	Do	
191	12	——do——	Do	
193	——do——		Do	
195	——do——		Do	
206	14	——do——	Do	

273.	27	Feb/74	Rev	Dept
386	4	June/74	Do	
1030	17	Aug/74	Do	
1307	12	Oct/74	Do	
1308	——do——		Do	
22	7	Jan/75	Do	
32	18	——do——	Do	
402	11	Mar/75	Do	
455	20th	——do——	Do	
497	31st	——do——	Do	
825	27	May/75	Do	
939	21	June/75	Do	
1408	24	Sept/75	Do	
1706	29	Feb/75	Do	
309	4	Mar/76	Do	
823	31	——do——	Rev	Dept
441	19	April/76	Pub	Dept
862	2	Aug/76	——do——	
1564	2	Nov/76	Rev	Dept
3027	11	——do——	Pub	Dept
3381	12	Dec/76	——do——	
434	23	——do——	Pub	Dept
282	22	Jan/77	Rev	Dept
1140	19	Mar/77	Do	
975	20	——do——	Do	Dept
522	23	April/77	Rev	Dept
540	24	——do——	Do	

Kiehna Ens Kondukt 20 Feb/77 Brevet-Lieut. 1st Lieut. 1st Feb/78.

Gonjaw Regimtsqr 30 Mar/77 180

Nelson Havard 23 —do— do.

Kiehna Surnumerary 5 Feb/77 Do

Genl Staff

No 2772 W. Public Works Department.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

Under date the 6 July 78

Read the following :—

From the Govt of India (M.E. No 110 Y dated 20th April 77)
" Govt. Astronomer (—— dated 15 June 78)
Tabular Statement of Earthquakes recorded in the Madras Presidency from the year 1865 to 1877.

Ordered that the following letter be sent.

No 2772 W

To
The Secy to the
Govt of India
P.W. Dept.

Sir,

I am directed to acknowledge the receipt of your letter No 110 Y dated 20th April 1877 and subsequent reminder on the subject of observations of Earthquake shocks which it is proposed to take at certain selected telegraph stations —

13

1

M. Public Dept
Draft 12-7-78

In reply I am
to forward the accom-
panying copy of a letter
from the Government
Astronomer at Madras
dated 15th June of this
year, in which Mr Pogson
offers suggestions as to
the best means for
taking the observations
and indicates the
places which he consi-
ders most favorable
for the purpose.

I am also to for-
ward a tabulated
statement of all earth-
quakes on record in
the Proceedings of
this Government for
the past twelve years.

13
2222 W
19

This may aid the Govt
of India in arriving
at a decision as to
the best places for
future observations

Gult 6/7

Signed and sealed this 15-7-78 and
copy for 27/7/78
to Madras on the 17-7-78 and
Copies of 4 Gov. Pl
of 87

Cir 6.7.78. Rcd 6.7.78
22.6.78 Rcd 6.7.78

A. 113 J.

Government of India.
Public Works Department.
Civil Works
Telegraph

To, The Secretary to the Govt of Madras.
Public Works Department.

Simla, 4th May 1878.

Sir,

I am directed to again invite attention to this Office Letter No. 110 J of the 20th April 1877 regarding the institution of observations of Earthquake shocks, and to observe that as no reply has yet been received.—If reply cannot be given at once I am to request that with the permission of His Excellency the Governor in Council explanation may be furnished as to the cause of delay.—

I have the honor to be,
Sir,
Your most obedient servant,
Captain R.E.
Asst Secy to the Govt of India.

C. E. 2055-24-7-77.
" - 2613 - 7-9-4
" - 4716 - 29-12-4

All communications should be addressed to the Secretary.

No. 110 I.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

Civil Works.
Telegraphs.

To,

The Secretary to the Govt of Madras.
Public Works Department.

Simla, 30th August 1877

The Undersigned is directed to invite attention to Public Works Department No 110 I of the 20th April last, regarding the institution of observations on earthquake shocks, and to request the favor of an early reply thereto.

I have &c
Captain R.E.
Asstt Secy to the Govt of India

Cir 20.8.78 Rctd 22.8.78.
Ord Corr 13.5.78.

2772

Public Works Department

Proceedings of the Madras Government

Read the following

Letter from the Govt of India / H.C. No 110/3 dated 4th May 1878)

The Government Astronomer will expedite his reply to the call made upon him.

Ordered that the following letter be sent to the Govt of India.

H.C. No dated 4th May

To The Secy to the Govt of India

Sir,

In reply to the Assistant Secretary's letter of the 4th May No 110/3, I am directed to enclose a copy of a proposed allowance of a suitable selection of Telegraph Stations

Astl Secy

No 2613

Referred to the Government Astronomer in confirmation of endorsement No 2055 of 24th July 1877

Ed Md Coll Rd
Secy to Govt
PWD

7th Septr 1877

in this Presidency where observations on Earthquakes might be made full information as to the locality and direction of past shocks is indispensable - And the Govt. records do not being found to contain such information, the Government Astronomer has been requested to ascertain whether sufficient data can be found to admit of among his records, an answer being given to the Govt. of India. He has been requested to expedite his reply, which on receipt will be forwarded. I am however to remark that as it is very unlikely that the required data will be forth coming, and as this Govt. attach much importance to the institution of regular observations on the phenomena of Earthquakes in this Presidency, a reference on this point might with advantage be made to the Royal Society.

Professor Stokes would be able to advise the Government of India in a matter of this kind more satisfactorily than any one in this ~~Govt.~~ Presidency.

207. WR 15.6.

Ex. H.

Letter from the Govt of India No 1103
dated 20th April 1878
Letter from the Government Astronomer, Madras
No — dated 15th June 1878.

FOR ORDERS.

Circulated with reference to remarks of Members of Government in the draft order in the file.

Wm. H. Clark
Under Secy to Govt. P.W.D.

15th June 1878

Lie 20.5.78 Delt 22.5.78
19.5.78

FOR ORDERS.

Cir 22.6.78. Cir 22.6.78
22-6-78.

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6853

Govt. of (1878) Madras.

PUBLIC WORKS

To The Public Dept.

Dated

Issued

Read. Encl.

G. O. 6th July 1878. No. 2771 & 2772

Nos. 574 & 575

Earthquakes

Ordered that the Govt of India be addressed regarding the information required by them with reference to observations of — proposed to be taken at certain telegraph stations

Encl in Mem.

Forwarding information required in connection with observations on Earthquake proposed to be taken at certain Telegraph Stations