

Public (1897) Department.

ORDINARY MS.

G.O., No. 392

Dated 6-4-97

[Despatch Abstract.]

Cornl to the Govt. Astronomer a letter from Mr E. L. R. Thornton explaining the statements that appear in the General Adminⁿ Report for 1895-6 relating to the Madras Observatory and stating that Mr Thornton should have exercised greater care in checking the figures embodied in the report.

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
C 7-11-473							

Public (1897) Department.

CURRENT No.



From

The Govt Astronomer
Madras.

No.

*Encl.
Under*

*Referred to
Mr. Thornton for
report. The original is
in his handwriting.*

Dated 10th February 1897.

Chief Secretary

Received 11th

Registered 12th

Enclosures

Spare copies

*J.B.
24/2/97*

Edn No 53072397

Referred to Mr. Thornton for

any explanation or remarks that he

*E.L. Thornton Esq. has to offer
(with original in his handwriting)*

(70)

26-2-97

SUBJECT.

*Calling attention to several
paragraphs in the report on
the administration of the
Madras Presidency during
the year 1895-96 about the
work of the Madras Observatory*

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

G.
25
1,030-14-12-96.

Public DEPARTMENT.

C. No. 590

H.E. THE GOVERNOR.

SUBJECT.

THE HON'BLE MR. BLISS, C.I.E.

THE HON'BLE MR. GROSE, C.I.E.

FOR ORDERS.

Before I can see the only
thing is to ask Mr. Thompson
what he has to say.

AS

22/2/97

As to what is to be said.

The offender is Mr. Thompson. I was
away on leave.

The posts have been destroyed so it is
not known whether Mr. Thompson went
over them or not. I told him that he
would have to do this and warned
him to look out for his own skin
I knew to be an off-handed young
man.

It is rather late in the day to send
an invitation to Lordia and Mr. Bishop
Smith with no doubt will be content
with a P.O. regarding the defects
reported and expressing regrets
that they have occurred.

AS

25/2/97



Memorandum No. 530

Read the following paper :—

From the Government Astronomer, Madras, No. 36,
dated 10th February 1897.

+++++

Referred to Mr. Thornton for any explanation or
remarks that he may have to offer. The original is in his
handwriting.

Port St. George. }
2nd March 1897. }

Medmishie
Chief Secretary.

M.L.R. Thornton Esq: I.O.S. *with originals to be returned*

Public (1897) Department.

CURRENT No. 716

From The Hd Asst Collector
Madras.

Order

No. 1013 of 97

Papers sent to
Mr Thornton under wrapper

Dated 4
Received 7
Registered 9 } - 3 - 97.

Enclosures

Spare copies

Wm
12/8/97

SUBJECT.

Submitting his explanation of the remarks in the Administration Report for 1894-95 regarding the working of the Madras Observatory.

Mr Thornton has not returned
the 2 A.C. letters.

BACK PAPERS.

G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.

No 1013
Rg 97.

Madura District Collector
Rannad 4 March 97.

From

E. L. Houston Esq.

Ag Head assistant collector
Madura.

To
The Chief Secretary
to the Government of
Madras.

Sir,

With reference to your memo
No 530 dated 2^d March 1897 I have
the honor to request that the original
drafts of both parts I and II may be
sent to me. So far as I remember
part II was drafted by the clerk —
though I have some recollection that
the Government Astronomer's report
was not quite clear, and I made
some alterations in the matter of the
"13 occasions on which the Semaphore
was dropped incorrectly." I also
request

request that the Government Astronomer
may be directed to send me a copy of
his original reports, as without these
I cannot explain how the mistakes
arose.

2. In regard to the phrase —
"fairly efficient" I would point out
that it appears to be copied from a
similar phrase in the Administration
Report for 1894-95 (page 35), and I
presume that was copied from
similar reports for previous years.
In a technical matter of this sort
I felt justified in adopting the —
phraseology of my predecessors.

I have the honor to be
Sir
Your most obed^t servant

Wm. L. G.

Asst. Secy. & Collector

I

rom.

The PD asst collector

Madras

To

The Chief Secretary
to the Govt of Madras

Dated 4.3.97

Receipt 1813 of 97

Subject

Requesting to send
the original drafts of
parts I & II (administration
reports of the work of the
Madras Observatory)

Madras University:- The Senate of the Madras University raised the qualifying minima ^{for} a pass in certain subjects of the M.B. and C.M. degree Examination, with a view to the diploma granted by the University being recognised by the General Council of Medical Education in the United Kingdom of Great Britain and Ireland. The number of candidates admitted to degrees in the several faculties advanced from 533 to 573. For the M.A. degree Examination twenty-seven appeared, of whom twelve passed, against ~~seventy~~ out of twenty-three in 1894-95. The passed candidates represented five branches of knowledge. In the English language, Second language, and Science Division of the B.A. degree examination, 593, 587 and 625 candidates respectively were successful, out of 926, 727 and 1010 who appeared. Of the successful candidates, 184 passed the examination in all the three divisions, and 351 completed the examination, having previously passed in one or two divisions, while 606 passed in one or two divisions only. Two female candidates appeared for the Advanced Physics branch of the Science division, and one was successful. The number of successful candidates at the First examination in Arts rose from 629 to 647, and the number of examinees from 1868 to 1893. One of the passed candidates and five of the examinees were women.

Colligate Education
Arts

^{then was eleven}
The number of first grade colleges remained the same as in 1894-95, ^{the previous year} viz., 11, and the B.A. and F.A. classes were, respectively, 1332 and 1098 strong against 1457 and 953 in 1894-95. Including the Sarah Tucker College, Palamcottah, specially opened for women, there were twenty-six. Second grade colleges against twenty-five in the previous year, and their strength rose from 756 to 945. The large

1306

Pub

3680

lower secondary stage of instruction in all

number who passed at the Matriculation Examination of December 1895 ^{was mainly impossible for} brought about the increase. Eight of the College students were women, ~~against three on the 31st March 1895.~~

Law

Six against seven candidates appeared for the M.L.degree examination, but as in the previous year, none passed. For the B.L.degree examination 130 candidates against 202 appeared, and ^{twenty-eight} ~~28~~ against ^{fifty-nine} ~~59~~ passed. ~~The decrease in the number of candidates was due chiefly to the examination having been open only to candidates who had passed the First Examination in Law held for the first time in May 1895, at which 186 passed out of 420 examined.~~ There was ^a marked advance again from 630 to 731 in the strength of the Law College, and the fee and other receipts rose from Rs.60,094 to Rs.67,353, the college ^{being} worked at a net profit of Rs.26,165. The Secretary of State sanctioned ^{the} ~~the~~ continuance of the College as a Government institution for a further period of five years, and a revised code of rules to regulate the work of the College was sanctioned during the year.

Medicine

No candidate appeared for the M.D.degree or for the L.S.Sc. degree examination during the year, ^{and for} ~~For~~ the Second M.B. and C.M.examination only one ^{who} ~~one~~ candidate appeared, and he failed. Seven candidates against three presented themselves for the first M.B. and C.M.examination, and five against two passed. At the preliminary scientific examination seven candidates met with success out of ten entrants. Fifteen and twenty-one candidates passed ~~the~~ second L.M.S. and first L.M.S. examinations, respectively, out of twenty-four and twenty-nine who appeared, against eleven and twenty-two, respectively, out of twenty-eight and fifty three in the previous year. The strength of the College

Medical College advanced from

...secondary stage of instruction in all

in the I.M.S. section, while ^{thirteen} 13 were casual students.

Engineering

Six against two candidates appeared for the B.E. degree examination, and four against two passed. At the first examination in Engineering, six out of eight examinees were successful against seven out of nine. Seven Engineers and 21 Engineer subordinates appeared for the final examination before the College Board of Examiners, ^{and} six and ^{fifteen} 15, respectively, passed. The College department of the College of Engineering contained ^{seventeen} 17 students as in the previous year and the Engineer Subordinate class was ^{forty-two} 42 strong. Three Engineers and ^{thirty-four} 34 Engineer subordinates completed their practical course, and received College diplomas and certificates, while two Engineers and ^{eight} 8 Engineer Subordinates completed their course in the Public Works Department Workshops. The length of the practical course for Engineers and Engineer Subordinates was reduced from two years to one year.

Teaching

For the written examination for the degree of Licentiate in Teaching ^{thirty-four} 34 against ^{thirty-five} 35 candidates appeared, and ^{thirty-four} 34 against ^{thirty-five} 35 passed, while for the practical examination ^{thirty-four} 34 candidates appeared, and ^{thirty-four} 34 passed against ^{thirty-five} 35 out of ^{thirty-five} 35 in 1894-95. At the written examination for the second-grade Collegiate Teachers' Certificates, ^{thirteen} 13 candidates were successful ^{out of 13 examined}. In the Training College, Rajahmundry, six graduates and three under-graduates of the F.A. standard were under training, and ^{thirty-three} 33 graduates and ^{seventeen} 17 First Arts undergraduates were attending the Teachers' College, Saidapet. The Students' Home attached to the latter institution continued to be ^{well} attended, and a residence for the Vice-Principal was in course of rapid construction.

Agriculture

The number on the rolls of the College of Agriculture fell from ^{thirty-four} 34 to ^{thirty-four} 34 and ^{thirty-four} 34 against ^{thirty-five} 35

lower secondary stage of instruction in all classes of institutions, there were 29606 boys against 27537.

Secondary Education
of girls

As in the previous year, no female candidate appeared for the upper secondary examination. At the Matriculation examination ^{twelve} 21 female candidates passed out of ^{nineteen} 27 entrants, against ^{eighteen} 18 out of ^{twenty-four} 24 in 1894-95. The number of upper secondary schools for girls fell from ^{twenty-seven} 28 to ^{twenty-five} 25, and the strength of the upper secondary department from 357 to 299. All the schools were borne on the recognised list on the 31st March 1896. For the lower secondary examination 545 against 514 female candidates presented ~~presented~~ themselves, of whom 221 against 176 qualified for complete certificates. For the results grants examination of the lower secondary standards 798 girls were presented, of whom 589 passed. Besides the lower secondary departments of upper secondary schools, there were ^{only three} 45 English, and 142 Vernacular, lower secondary schools for girls, against ^{thirty-one} 31 English and 146 Vernacular schools in the previous year, and 149 schools on the whole were recognised under the educational rules. In the lower secondary stage of instruction in all classes of institutions, there were 2993 against 2859 girls.

Primary education

For the Primary examination 27309 male and 2015 female candidates appeared against 27234 and 1765 in 1894-95, and 11315 male and 1036 female candidates passed for certificates against 11251 and 947 in that year. For the results grants examination for the primary standards 187545 boys and 37477 girls were presented, of whom 133024 boys 26292 girls passed. Public primary schools for boys rose from 18852 to 19269, and their strength from 546037 to 559365. Girls schools of this description fell from 767 to 763, and their strength from 32554 to 32466. There were in all classes of institutions 11361 boys and 5150 girls in the

upper primary stage of instruction, against 38376 and 4889, respectively, in the year previous.

Training Schools

The Teachers' Certificate Examination Board was reconstituted during the year; it now consists of a President, a Secretary and eleven members. For the written test for ~~the~~ Teachers' Certificates, 2325 candidates against 2517 appeared, 1962 against 2007 for trained, and 363 against 510 for untrained, teachers' certificates; and 499 ^{and} 917 passed against 435 and 880, respectively, for trained and untrained teachers' certificates. At the practical test 977 candidates passed out of 1177. During the year 203 trained and 400 untrained general teachers' certificates of primary and secondary grades, and 12 technical teachers' certificates of elementary and intermediate grades were issued. Including sessional schools and schools for gymnastic instructors, training schools for men rose from ⁵⁶ ~~56~~ to ⁵⁸ ~~56~~ and their strength from 1385 to 1401, but the number of students under instruction in Training schools proper decreased from 1185 to 1171. At the written test ¹⁵ ~~15~~ trained masters passed for upper secondary, ⁶¹ ~~61~~ for lower secondary, and 256 for primary grade certificates; and 1060 trained men entered service as teachers. As in 1894-95 there were nineteen training schools for mistresses, but their strength rose slightly from 309 to 315. At the written test ¹⁴ ~~14~~ trained mistresses passed for upper secondary, ³⁴ ~~34~~ for lower secondary, and ⁶⁰ ~~60~~ for primary grade certificates; and 218 trained mistresses found employment as teachers. For the examination for certificates as gymnastic instructors, ⁴⁶ ~~46~~ candidates appeared, of whom ³⁵ ~~35~~ were successful, and ²⁵ ~~25~~ trained men obtained employment as gymnastic teachers. On the whole ²⁹ ~~29~~ sessional schools were held during the year, and 1187 teachers attended them: of these 899 appeared for the

Complete at the primary examination, and ³⁴ ~~34~~ for a portion of the test; 646 passed for complete

Schools of Medicine

the primary and final examinations for the diploma of apothecary, eight and six candidates, including one and three women, respectively, appeared, and all were successful, and the only candidate that appeared for the examination for chemists and druggists also met with success. For the final examination for the college certificate of hospital assistant, 129 candidates presented themselves, of whom 125 passed. There were three schools of medicine as in 1894-95, and their strength rose from 384 to 399, of whom ^{nineteen} 69 were women.

Technical, Industrial & art schools

At the Government Technical examinations, 1331 subject-candidates were successful out of 2487 entrants against 989 out of 1848 ^{and} of the passed candidates ^{fifteen} 15 passed advanced, 384 intermediate, and 982 elementary examinations. Six candidates also received diplomas in Agriculture, and three in Drawing, and ^{twelve} 12 candidates obtained group certificates in Drawing, one in Mechanical drawing, and one in Book-keeping. There were ^{thirty six} 36 technical, industrial or art schools as in 1894-95, but their strength rose from 3035 to 3430. At the four industrial standards, 189 boys passed for grants out of 252 examinees, and no girls were presented, and ^{thirty five} 35 passed students obtained employment as teachers. The number of juveniles in the Reformatory school, Chingleput, rose from 145 to 152, and the institution continued to do good work.

Private & indigenous schools.

Private and indigenous schools advanced from 4675 with 93634 pupils to 5134 with 102443 pupils: ^{thirty two} 32 of the schools against forty were advanced schools teaching Arabic or Persian, and 146 against 137 were advanced schools teaching Sanskrit. Eight against nine Sanskrit schools received aid from Government.

General statistics

Institutions, public and private, of all

...ules were framed for its guidance. As

grades rose from 25182 to 26066, and scholars therein from 764354 to 791634. The number of schools advanced more or less in all districts except two, (Kurnool and South Arcot), and the number of scholars in all, except Kurnool. The proportion of scholars to population in the different districts varied from one in eleven to one in 82. Of the male and female population of school age, 25.8 & 4.1 per cent were under instruction.

Financial

All classes of institutions taken together yielded in fees Rs. 1821034 against Rs. 1765723, but the per-centage of fees to total cost remained the same, viz, 33. The fee income in all classes of institutions showed an increase, that in Government and board schools being Rs. 13783 and Rs. 11922, and that in aided and unaided and private schools Rs. 5230 and Rs. 224339, respectively. On grants-in-aid Rs. 619780, Rs. 232460 and Rs. 99124 were, respectively, paid from Provincial, Local, and Municipal funds against Rs. 594349, Rs. 225947 and Rs. 93665. The total expenditure on public instruction from all sources advanced from Rs. 6424235 to Rs. 6604660, of which Rs. 2010772 were contributed by Government, Rs. 909061 by local boards, Rs. 224011 by Municipalities, and Rs. 1842886 by fees. The balance was met from endowments, subscriptions and miscellaneous receipts. Of the aggregate outlay 12.76 per cent was devoted to university education, 60. to general, and 7.54 to special, school education. The per-centage of expenditure on direction and inspection rose from 61.6.92 to 6.98.

Registration of books

The number of publications registered during the year advanced from 928 to 932, of which 249 were in English and other European languages; 275 of the registered publications, or nearly 30 per cent, of the total were educational in their aim. The number of works registered for copyright was 323 against 288 in the previous year.

Miscellaneous

basis and rules were framed for its guidance. As many as 604 books were examined by the Committee, of which 309 were approved and ~~295~~ rejected. Accommodation having become available since the removal of the Literary Society to the Museum buildings, the Educational Library is being rearranged, and made open to the educational public for reference and consultation. The provision of hostels in connection with the important colleges, the instruction of Muhammadans, Panchamas and other backward classes, and the advance of physical and moral education side by side with the intellectual training received continued attention.

Ootacamund Lawrence

Asylum.

Excluding day scholars, the strength of the male branch of the Lawrence Asylum rose from 319 to 321, of whom 128 were of European parentage, and as many as 232 boys, or 72 per cent, were sons of Members of the British Army. The average cost per pupil rose from Rs. 286 to Rs. 303. The female branch of the Asylum was ^{and} 64 strong, excluding day scholars, ^{and} forty-two of the girls were of European parentage and as many as ^{fifty-two} 53 were daughters of soldiers of the ~~British~~ ^{Ri} Army. The average cost per pupil fell from Rs. 318 to ^{Ri} 312. The results of the public examinations and the inspection were generally satisfactory, except those obtained by the male branch at the Lower Secondary Examination.

Notes on Government Examinations

Government Examinations

During the year 1895-96, there were held in all eleven examinations, approximately the same as the year previous. Particulars have already been given regarding the Upper and Lower Secondary and Primary Examinations, as also of the Higher Examination in Art, Music and the Government School and Examination.

(1) The Primary Examination

For this examination which was held in accordance with the revised notification of the 23rd August 1895, 29,324 candidates appeared and 29,561 passed, of whom 12,351 rendered themselves eligible for certification. The corresponding figures for 1894-95 being 28,992, 29,659 and 12,198.

(2) The Lower Secondary Examination

For this examination 7,094 candidates appeared, of whom 4,418 passed, 1,821 having qualified for certificates. The numbers that appeared, passed and qualified for certificates in the year previous were 6,175, 3,925 and 1,800 respectively.

(3) The Upper Secondary Examination

(Compulsory portion)

For this examination there were registered in all 96 candidates, of whom 60 applied for the whole of the compulsory subjects, the remaining 36 having registered their names for those subjects only in which they had not already passed. Of

The

God, name of

the 86 candidates that underwent examination, only 7 passed on the whole. The numbers registered and examined in the year previous were 100 and 92 respectively.

(4) Government Technical Examinations

As usual, these examinations were held twice in the year, once in the month of April and again in the month of November. Taking both the examinations together, 54 candidates appeared for the Advanced examination, of whom 15 passed as against 32 and 14 respectively in the previous year. For the Intermediate examination, 682 candidates appeared, of whom 384 passed as against 633 and 380 respectively in the previous year. For the Elementary examination, 1,751 candidates were examined, of whom 982 passed as against 1,183 and 595 respectively in 1894-95.

(5) The Handwriting Test for Undergraduates.

For this examination, which was held in accordance with ~~not~~ under Article 2 of the Public Service Notification, 1,498 candidates appeared, of whom 487 were successful, as against 1,589 and 971 respectively in the previous year. Of these ~~487~~ successful candidates, 383 were Matriculatis and 104 First Arts men.

(6) Medical Entrance Examinations.

Two examinations were held for the admission of candidates into the subordinate Department of the Medical College, one for the ~~Native~~ Branch, for which 100 candidates appeared ^{against} ~~100~~ in the previous year, and the other for the grades of Civil Medical Pupil and Native Military Pupil, for which 111 ^{scout} ~~were~~ appeared, respectively, ~~the corresponding figures for the previous year being~~ ^{against} 128 and ~~111~~ ^{being} respectively.

(7) Special Tests

The Special Tests, including the tests prescribed for officers of the Salt and Abkari Department, were held for the second time last year under the revised notification of the 9th May 1894. The total number of candidates registered for the Special Tests, chiefly Revenue and Judicial, was 5686 against 5687; and the numbers examined and passed were 4978 and 1634 as against 4882 and 1786, respectively, in the previous year. The percentage of passed to examined was 32.82 against 36.58. ~~Five~~ ^{five} ~~hundred and thirty~~ candidates appeared for the Salt and Abkari Tests, of whom 313 passed, the corresponding figures for 1894-95 being 506 and 284.

(10) Sub. Assistant Inspectors' Tests

These tests were held last year in the month of April in accordance with G.O. No. 285, Educational, dated 25th April 1894. The total number of candidates that registered their names ^{in the} was ~~101~~ ¹⁰¹, of whom ~~101~~ ¹⁰¹ applied for the Sub. Assistant's tests proper, and the rest in view to qualifying for clerkships on Rs 50 and upwards in the Educational Department. Eighty nine subject-candidates passed out of 101 registered.

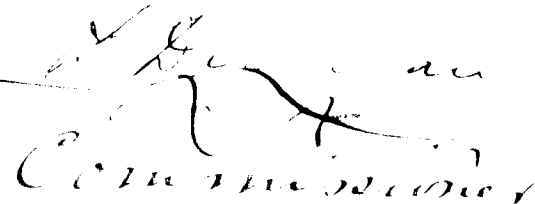
(11) The Salt and Abkari Department Competitive Examination.

This examination was held for the third time last year. Ten candidates registered their names, nine presented themselves for examination, and six passed. The number of appointments thrown open to competition was two.

(12) Receipts and Charges

The receipts for the year in connection with the examinations under the control of the Commissioner amounted to Rs 97,016, and the Charges to Rs 1,09,662. In 1894-95, the receipts were Rs 92,409 and the Charges Rs 1,19,484.

Office of the Commissioner
for Government Examinations
Madras, 30th Dec 1895


Commissioner

hct

School of Arts

See below.

Government Central Museum

The total number of visitors to the Government Central Museum was 385,373 against 368,192 in 1894-95, and the number of yosha visitors 2,466 against 2,256. The anthropological survey was steadily continued during the year.

Central Manuscript Library

Out of the grant of Rs 600 allotted yearly for the library of Central Manuscripts, Rs 334 were spent in transcribing, Rs 83 in purchasing and Rs 17 in binding manuscripts. The balance of Rs 113 was spent on minor contingencies. Thirty-nine manuscripts were purchased, and twenty-six presented to the library, which further presents a copy, and value returned. The number of visitors advanced from 1,484 to 1,531.

Madras Board of

Volume 24 of the Madras Museum Circulars was issued during the year, and the preparation of a catalogue was taken in hand. The building and instruments were maintained in good order and a large amount of work was done towards determining the graduation

error of the meridian circle. The time service was fairly efficient, the percentage of success in firing the time gun being 95. against 97.8 in the previous year. The meteorological registers were maintained as in former years. The rainfall amounted to 67.37 inches against 63.48 in the previous year, and the maximum temperature recorded was 109° F.

Nuclear Meteorological Department -

Meteorological observations were recorded at seventeen
 stations in the previous year. Seven observations
 were important, and found all except one were
 found to be satisfactory. The observations taken at
 8 AM were regularly telegraphed from all the
 observatories to the Sums, Peking, and Peking and
 Russian meteorological offices, from all the
 Russian observatories. The daily weather
 charts, a for storm warning service. The
 Russian daily weather report and chart was
 published regularly at the meteorological office.
 On the 31st March 1904 there was a heavy snow storm.
 According to the daily rainfall was
 given at 246 Russian Rain stations,
 and the was published in the first of
 April.

In Summary 2 Section III

School of Arts

The number of students on the rolls of the Madras School of Arts was at the close of the year was 615 against 515 at its commencement. Both the drawing and industrial classes shared equally in the increase, and all the communities participated in the advance under male pupils. The average daily attendance increased from 300 to 373. Fifty-nine of the apprentices were instructed in wood-carving, sixteen in carpet-weaving, thirty-two in metal work, thirteen in jewellery, fourteen in pottery manufacture, and thirty-nine in decorative work. None of the ~~students~~ industrial students appeared for the advanced tests in the Government Technical examination, but the number of successful candidates for ~~some~~ drawing examinations advanced from 185 to 284. The receipts amounted to Rs 12,714 against Rs 11,156 in the previous year, and the charges to Rs 36,028 against Rs 35,271. The net cost to Government was then Rs 24,121.

4.11.26

Vol. V
 Part I. Sec. VII
 The Press

The Press

The number of vernacular papers
 and periodicals ~~published~~ in circulation
 during the year was eightyfour - of
 twenty five of these were published in
 Tamil, nineteen in Telugu, eighteen in
 Malayalam, five in Hindustani, and
 four in Canarese, and thirteen in more
 than one language - ~~The papers were~~
 the Satyavata, ~~and the~~ in English and
Tamil ~~four~~, and the Independent
of Truth ~~and the~~ Telugu
~~the former~~ the former ~~and~~ in English and
Tamil, and the latter in English and
Telugu, journal.

600
 3/2.

GOVERNMENT OF MADRAS.

PUBLIC DEPARTMENT.

READ—the following papers:—

From the Government Astronomer, Madras, dated 15th May 1896, No. 99.

ENCLOSURE.

ADMINISTRATION REPORT OF THE MADRAS OBSERVATORY
FOR THE YEAR 1895

Staff.—The Government Astronomer was absent from Madras on privilege leave and deputation connected with the Kodaikānal Observatory from May 17th to October 9th. During his absence Professor R. Li. Jones acted as Government Astronomer. Mr. P. N. Varadachari, the Sixth Assistant, died on the 21st June 1895, and his place was filled temporarily by N. Subramaniya Aiyar.

2. Buildings and Instruments.—The buildings and instruments were maintained in good order throughout the year. The screws of the micrometers of the transit instrument having been found to be so much worn that it was impossible to obtain accurate values for the circle errors, the micrometers were dismantled and sent home to the makers, Messrs. Troughton and Simms, for repairs. The old gun-metal screws were replaced by new steel screws and the microscopes were returned to Madras in good order in November. They were at once re-erected and found to give excellent results. There is no means in the Observatory for rigidly testing the accuracy of the screws, but such tests as were possible have been applied with satisfactory results.

A Kew-pattern photoheliograph, intended for the Kodaikānal Observatory, was received in April, but was not erected, as no place was available in which it could be set up. An iron hut will, however, be built for it shortly.

3. Time Service.—The time service was maintained as in former years. The time-gun at Fort St. George failed on 15 occasions out of 726, giving a percentage of success of 98. The causes of the failures may be classed thus:—

Due to the earthplate at the Fort having been stolen	3
Do. connection with the new earthplate not having been properly soldered	4
Do. gunner being late	1
Do. broken telegraph line	3
Do. misfires	3
Cause unknown	1
Total	15

So that the causes of all the failures (with the possible exception of one) lay beyond the direct control of the Observatory. The semaphore at the Port office failed to drop on two days and on six other days it failed at 1 o'clock, but was dropped at 2 o'clock. On all other days throughout the year it was dropped correctly at 1 o'clock. The failures of the semaphore were, with one exception, due to interruptions on the line, the remaining failure was due to the Marine signaller having lost the key of the signal room. The 4 p.m. time signal was sent from the Observatory on every day throughout the year, but on two occasions it was not received at the Telegraph Office.

For Review
I have arranged the papers as in last year's report placing observations at Kodaikānal before "Madras"
over
2078

4. Time Service
Madras
mean time

connected to the Fort
but it is from
affiliated

The fault on both occasions lay in the switch board at the Telegraph Office. During October the noon gun was not fired on Sundays. This was due to an order of the Commander-in-Chief, which was rescinded on representations made by the Government Astronomer.

4. *Observations.*—As for many years past observations have been sacrificed to reduction, but in addition to the necessary observations for the determination of the true time, a large amount of work has been done in determining the graduation errors of the meridian circle. The readings taken with the old screws have all been rejected and the work was re-commenced on the arrival of the new screws. By the close of the year the errors of the four quadrants had been determined, and the work will be pushed on as rapidly as other more pressing duties will allow.

5. *Reduction and Publication of old Observations.*—Volume VIII. of the "Madras Meridian Circle Observations" was issued at the beginning of the year. A preliminary reduction of the observations for N.P.D. of the circumpolar stars for the whole period 1862–1887 was completed, but the value obtained for the latitude still requires correction for the graduation errors of the circle, and until these have been determined, it is useless to discuss the result further. The preparation of the catalogue of about 5,000 stars, which will contain the final results of the 51,000 observations dealt with in the eight volumes already published, is well in hand. At the close of the year the catalogue places had been prepared for all except the close polar stars for the first four hours of right ascension, and every effort will be made to complete the work as rapidly as is consistent with strict accuracy in the results. A pamphlet containing the Madras Daily Meteorological Means was prepared and was in the press at the close of the year. These means have been deduced from long series of observations (extending over 80 years in the case of the rainfall and 50 years for the barometer) and are specially intended for use in the various meteorological offices which issue daily weather reports.

6. *The Library.*—During the year 226 volumes and pamphlets were presented to the library.

7. *The New Observatory.*—Work on the new Solar Physics Observatory at Kodaikānal has not advanced so fast as had been hoped for, but some progress has been made. The details of the equipment of the observatory have been fully worked out in consultation with astronomers at home and have been approved of by the Indian Observatories Committee. The site at Kodaikānal has been taken over, a road has been opened to the top of the hill, and materials have been collected for the Astronomer's house. In October His Excellency Lord Wenlock laid the foundation stone of the observatory. There seems no good reason why the future progress of the work should not be rapid, but unexpected causes of delay seem to spring up at every turn, and the actual building has not yet commenced.

8. *Meteorological.*—The meteorological registers were maintained as in former years and the chief features of the year's meteorology are shown in the appended tables and diagram.

Temperature.—The mean temperature of the air was below normal in March, July, August, October, and December, and above normal during the rest of the year. The greatest excess was 1.5 in June and the greatest defect 1.1 in July. The mean maximum temperature was above average for the first six months of the year and in September and December. The greatest excesses were 2.7 in May and 2.6 in January. The maximum recorded was 109.1 on May 18th and the minimum 57.3 on December 11th, the lowest ever recorded in Madras. The mean daily range was above average in all months except June, the difference being about 3° for each of the first three months of the year. The maximum solar heat in vacuo was above normal in all months except July; this excess was upwards of 8° in April, May, June, and November and was 6.1 for the whole year.

Pressure.—The barometer was below normal in January, March, August, and December, normal in September, and above normal during the rest of the year; the greatest variation was + 0.046 inch in November.

Rainfall.—No rain fell during the first four months of the year and the fall in May and June was less than half the normal, but for the rest of the year the rainfall was nearly average. The monsoon rainfall amounted to 27.95 inches against an average of 27.6 inches.

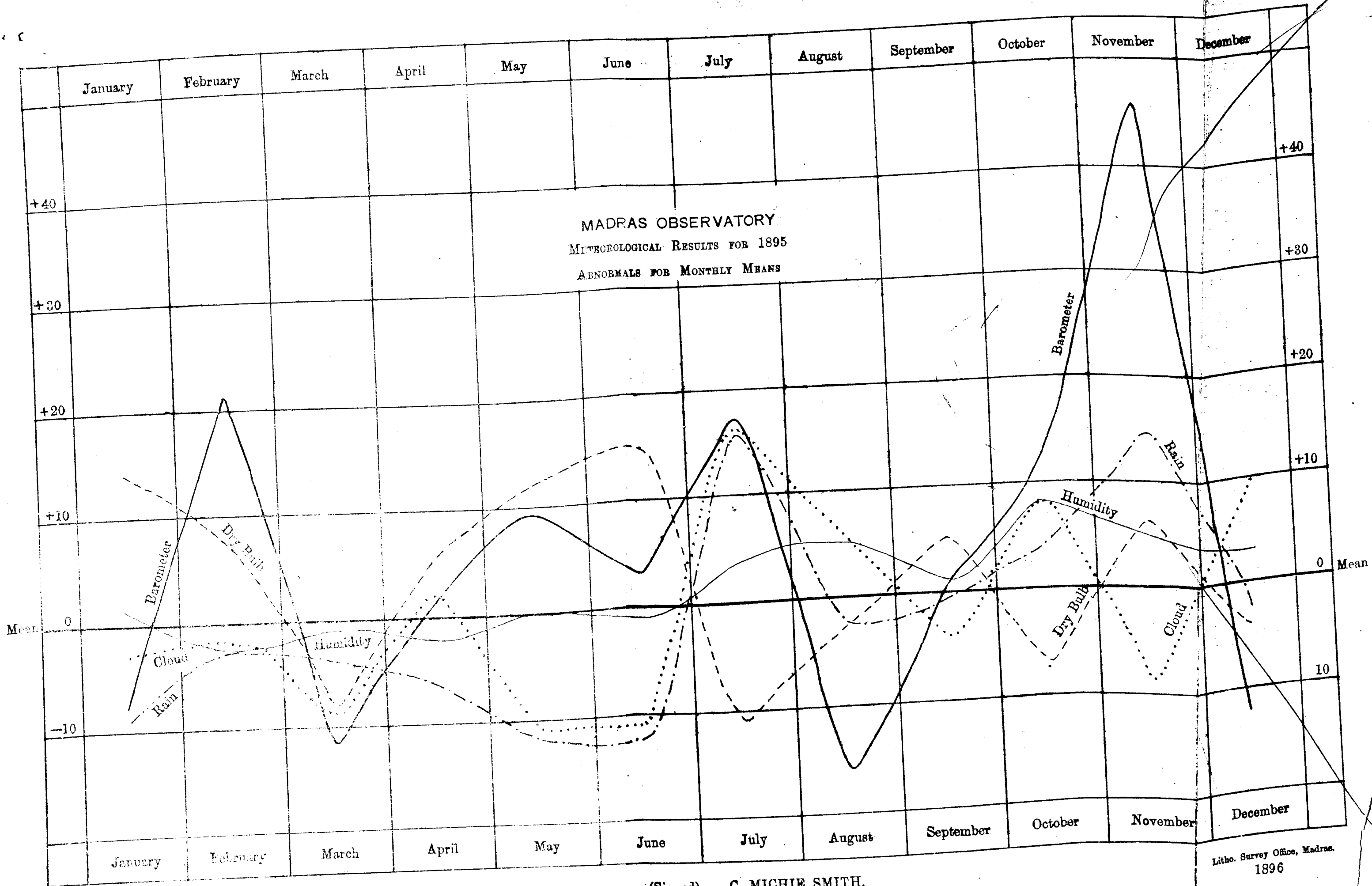
Wind.—The mean wind direction was nearly normal in all months except February when it was two points more southerly and October when it was four points more easterly than normal. The velocity was largely in defect during the most of the year. The defect in the daily velocity amounted to no less than 46 miles in July and August. The maximum in any one day was 330 miles on May 3rd and the minimum 26 miles on October 15th.

Sunshine.—There were 2,461 hours of bright sunshine against an average for the five preceding years of 2,675 hours.

APPENDIX I.

EXTREME Monthly Meteorological Records at the Madras Observatory in 1895.

Barometer.



Reg. No. 3991
Copies—28

SCALES.

Barometer ——— 1 Div. = 0.001 Inch.
 Dry Bulb ——— " = 0.1 Degree.
 Humidity ——— " = 0.1 Inch.
 Rain ——— " = 1 per cent.
 Cloud ——— " = 1 per cent.

(Signed) **C. MICHIE SMITH,**
Government Astronomer.

Litho. Survey Office, Madras.
1896

APPENDIX II.

MADRAS Observatory Meteorological Observations—Abnormals for monthly Means.

1895.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7
Reduced atmospheric pressure	— 0.008	+ 0.021	— 0.012	+ 0.001	+ 0.009	+ 0.008
Temperature of air	+ 1.4	+ 0.7	— 0.8	+ 0.6	+ 1.2	+ 1.5
Do. of evaporation	+ 1.3	— 0.2	— 1.1	— 0.1	+ 1.2	+ 1.1
Percentage of humidity	+ 1	— 3	— 1	— 2	..	1
Greatest solar heat in vacuo	+ 7.7	+ 6.8	+ 6.1	+ 6.0	+ 8.4	+ 8.7
Maximum in shade	+ 2.6	+ 1.6	+ 0.2	+ 2.2	+ 2.7	+ 1.8
Minimum in shade	— 0.6	— 1.4	— 3.0	— 0.4	+ 0.7	+ 1.6
Do. on grass	+ 1.2	+ 0.4	— 1.7	+ 1.2	+ 1.7	+ 2.7
Rainfall in inches	— 0.89	— 0.28	— 0.39	— 0.63	— 1.17	— 1.21
Do. since January 1st	— 0.89	— 1.17	— 1.56	— 2.19	— 3.36	— 4.57
General direction of wind	..	2-S.	1-E.	1-E.	..	1-S.
Daily velocity in miles	— 28	— 2	— 12	— 5	..	+ 14
Percentage of clear sky	+ 3	+ 2	+ 9	— 2	+ 11	+ 11
Do. of bright sunshine	— 2	+ 0.9	+ 1.4	— 2	— 1.8	— 9.3

1895.	July.	August.	September.	October.	November.	December.	Annual.
8	9	10	11	12	13	14	
Reduced atmospheric pressure	+ 0.017	— 0.016	..	+ 0.012	+ 0.046	— 0.013	+ 0.005
Temperature of air	— 1.1	— 0.3	+ 0.5	— 0.7	+ 0.6	— 0.4	+ 0.3
Do. of evaporation	..	+ 0.8	+ 0.9	+ 1.3	+ 1.9	+ 0.2	+ 0.7
Percentage of humidity	+ 4	+ 5	+ 1	+ 8	+ 5	+ 3	+ 2
Greatest solar heat in vacuo	— 0.3	+ 2.4	+ 7.1	+ 5.6	+ 9.4	+ 2.9	+ 6.1
Maximum in shade	— 2.3	— 0.7	+ 1.2	— 0.8	+ 1.7	— 0.1	+ 0.8
Minimum in shade	— 1.1	— 0.6	+ 0.1	— 0.9	— 0.4	— 0.8	— 0.6
Do. on grass	— 0.3	+ 0.2	+ 0.7	+ 0.4	— 0.4	— 0.2	+ 0.5
Rainfall in inches	+ 1.56	— 0.20	— 0.07	+ 0.42	+ 1.44	— 0.23	— 1.65
Do. since January 1st	— 3.01	— 3.21	— 3.28	— 2.86	— 1.42	— 1.65	— 1.65
General direction of wind	..	..	..	4-E.	1-N.	1-N.	..
Daily velocity in miles	— 46	— 46	— 36	— 24	— 38	+ 9	— 18
Percentage of clear sky	— 16	— 6	+ 4	— 8	+ 9	— 10	+ 1
Do. of bright sunshine	— 10.5	— 6.5	+ 3.8	— 13.2	+ 3.1	— 18.1	— 5.1

+ means above and — below the average.

From the Government Astronomer, Madras, dated 2nd June 1896, No. 107.

ORDER—No. 608, Public, dated 11th June 1896.

Recorded.

(True Extract.)

J. F. PRICE,
Chief Secretary.

To the Government Astronomer.
Editors' Table.

ENDORSEMENT—No. 609, Public, dated 11th June 1896.

Copy to the Government of India, Revenue and Agricultural Department.

J. F. PRICE,
Chief Secretary.

Issued

Recd.

Encl.

G.O., &c., Nos. 608, 609,
11th June 1896.

JUNE.

Madras Observatory.

Recording the administration report of the —
for 1895, and forwarding copy of the proceedings
to the Government of India.

Manuscript notes.

1. Publications. Volume VIII of the Madras Meridian Circle Observations was issued at the beginning of the year and a pamphlet containing the Madras Daily Meteorological means was in the Press at the close of the year.
2. Observations and Reductions. Considerable progress was made with the determination of the errors of graduation of the Meridian circle and with the preparation of the final Catalogue of about 5000 Stars for the epoch — 1875.0.
3. Time Service. The time service was maintained as in former years.
4. Kodaikanal Observatory. The details of the equipment of the new Solar Physics Observatory at Kodaikanal were fully worked out in communication with Astronomers at home. Some materials have been accumulated for the building of the Astronomer's house and the foundation stone of the Observatory was laid by Mr. E. Lord Wellesley in October.

Meteorology.

Remarks: —

5. Meteorology. The meteorological registers — were maintained as in former years.

6. Temperature. The mean temperature of air was below normal in March, July, August, October, and December, and above normal — during the rest of the year. The greatest — excess was $1^{\circ}.5$ in June and the greatest defect $1^{\circ}.1$ in July. The mean maximum temperature was above average for the first six months of the year and in September and December. The greatest excesses were $2^{\circ}.7$ in May and $2^{\circ}.6$ in January. The maximum recorded was $109^{\circ}.1$ on May 18th and the minimum $57^{\circ}.3$ on December 11th, the lowest ever recorded in Madras. The mean daily range was above average in all — months except June, the difference being — about 3° for each of the first three months of the year. The maximum Solar heat in vacuum was above normal in all months except July; this excess was upwards of 3° in April, May, June, and November and was $6^{\circ}.1$ for the whole year.

7. Pressure. The barometer was below normal in

in January, March, August, and December, — normal in September, and above normal during the rest of the year; the greatest variation was + 0.046 inch in November.

§ Rainfall. No rain fell during the first four months of the year and the fall in May and June was less than half the normal, but for the rest of the year the rainfall was nearly average. The monsoon rainfall amounted to 27.95 inches against an average of 27.6 inches.

§ Wind. The mean wind direction was nearly normal in all months except February when it was two points more southerly and October when it was four points more easterly than normal. The velocity was largely in defect during the most of the year. The defect in the daily velocity amounted to no less than 46 miles in July and August. The maximum in any one day was 330 miles on May 3^d and the minimum 26 miles on October 15th.

§ Sunshine. There were 2,461 hours of bright Sunshine against an average for the five preceding years of 2,675 hours.

Christine Smith
Asst. Astronomer

CURRENT NO.

THE OBSERVATORY,

NUNGUMBAKUM,

No. 142

Madras, 10 July 1896

FROM

THE GOVERNMENT ASTRONOMER,

Madras.

TO

The Honble Mr. J. F. Price.,

Chief Secretary to Government.

SIR,

I have the honor to enclose the
manuscript notes of the Administration
Report of the Madras Observatory.

I have the honor to be,

Sir,

Your most obedient Servant

Michael Smith

Govt. Astronomer.

From. Public Dept.

The Govt. Astronomer
Madras.



Dated 10 July 1896.

Recd 12 }
Regd 13 } July '96

Enclos. one

VII

Enclosing the manuscript
notes of the administration
report of the Madras Observatory.

No. 36

THE OBSERVATORY,
NUNGUMBARKUM,

Madras, 10 February 1897.

FROM

THE GOVERNMENT ASTRONOMER,
Madras.

TO

The Hon'ble Mr. J. J. Price,
Chief Secretary to Government.

SIR,

I have the honor to call your attention
to several paragraphs in the report on the
administration of the Madras Presidency during
the year 1895-96 regarding the work of the Madras
Observatory.

2. The general statement on pages (36) (37) gives
an altogether misleading summary of the work
done, while, I think, I have good reason to
complain against the use of the expression
"fairly efficient" applied to the time service,
when the following is the actual facts as stated
in my report:—

Time Gun 98% of success
Semaaphore 98.6
4 P.m. Signal 99.4.

3. Again on page 196, it is stated that the
Semaaphore "was dropped correctly daily on all
but 13 occasions" while as a matter of fact it
was dropped correctly on all except 2 days, though

Today it was dropped at 2 P.M. instead
of at 1 P.M.

4. Failures in the time signal must occur
from time to time, but I have taken every
pains to reduce these failures as low as possible,
and it is very discouraging to find in the
Official Government Report not only that
the actual failures are greatly exaggerated,
but that an amount of success, which compares
favourably with the results obtained elsewhere,
is condemned as "fairly efficient."

I have the honor to be,

Sir,

Your most obedient Servant;

C. Michie Smith

Govt Astronomer.

C/10/3
28/97

Public

(1897)

Department.

CURRENT No. 1124

From E. L. Thornton Esquire
Ag. Head Asst. Collector
Madras.

Order

No. 354/97.

Dated 15

Received 19

Registered 20

Enclosures 6 (Memo 530, C570, C225/97
with endor. returned)

Spare copies

SUBJECT.

Offering certain remarks
with reference to the Govt
Astronomer's Complaint about
the review of the work of
the Madras Observatory.

G.O.	No.	Department.	

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Public Department.

Madras Adm. Collector's Office

Dis No 304/97.

Revenue - Madras

From

E. L. Thornton Esquire

by Head and Collector
Madras

To

The Chief Secretary

to the Government of
Madras.

Sir,

With reference to your memo

No 530 returned herewith with enclos.
2.3.97

I have the honor to make the following

remarks -

the honor to state that after again
perusing the MSS Notes submitted
by the Government Astronomer for the
Summary, I am unable to agree with
him that the statement in pages 36
and 37 is an "altogether misleading
Summary". My instructions were to
make these summaries as concise as
possible, and the main points noted
by the Astronomer seem to me to
be recorded in my Summary.

4. In regard to (B), the
Government Astronomer's own notes
about the Time Service is:—"The Time
Service was maintained as in former years
In his fuller report he states that
the percentage of ... is going
... was 98 against ...

Summary (Page 35), I find the following:-
The time service was fairly efficient,
the percentage of Success in fixing the
time given being 97.1 against 97.3
in the previous year." As far as I
know no Complaint was made of the
expression by the Government
Astronomer then, and the phraseology
was therefore adopted this year.

5. In regard to (1) I find as I
thought that the draft of the Madras
Observatory (pages 196-197) was prepared
by my Clerk Mr. Rosario. It is the
practice to allow the clerk attached to
the office to prepare some of
the minor reports, as the difficulty
generally is to restrain their eagerness

the Astronomer's report and his
present admission the Semaphore
was dropped incorrectly on eight and
not two occasions. I regret that
Mr. Rosario's substitution of the
figure 13 for 8 slipped my notice.

6. The original drafts of parts
I & II are returned herewith.

I have the honor to be,

Sir,

your most obedient servant

Wm. L. G.

Head and Neck Collector

From

The Hon. Mr. Secretary
Madam

To

The Chief Secretary
to the Government
of Madras.



Dated 15. 3. 97

Des to Secy to Govt

Encl. 4

Subject

Offering remarks with
reference to the Govt.
astronomer's complaint
herein appended.

C. Nos. 590, 916 & 1124.

H. E. THE GOVERNOR.

THE HON'BLE MR. BLISS, C.I.E.

THE HON'BLE MR. GROSE, C.I.E.

SUBJECT.

In re the Govt. Astronomer's complaint regarding the review, in the Administration Report, of the work of the Madras Observatory

FOR ORDERS.

In his letter No. 56 of the 10th February last the Govt. Astronomer complains

(1) that the general statement on pages 36 and 37 of the Administration Report for 195-96, regarding the Madras Observatory was an altogether misleading summary of the work done there;

(2) that a percentage of success in the time service, which compares favourably with the results obtained elsewhere, should be deemed with the faint praise "fairly efficient";

(3) that it was very discouraging to find, notwithstanding his going to the end of the failures in the time signal as far as possible, that the actual failures were greatly exaggerated in the official Govt. Report.

These complaints were referred to Mr. Pocanton for his remarks in connection with the notes of the hon. member at d/22nd February 1897

* marked with red tape

* Time gun 98 p.c. of success i.e. $\frac{711}{726}$
Semaphore 98.6 " " x 2
4 p.m. signal 99.4 " " i.e. $\frac{303}{305}$

It is not apparent how Mr. Michie Smith arrives at the figure 98.6 for the Semaphore
note *

(3) That the number of times the time-telegraph failed to drop was 8 not 13 as given in the Administration report
(p. 46)

* note p 196 marked with red ink & tape

days it was dropped at 2 P.M. instead

in errors on the clerk's part
could arise from the entry of
13 instead of 8 as the number
of times the semaphore failed.
It seems plain also that the
proof cannot have been
checked with the original.

AK
29/3/97
I do not know what is to be
done now. Mr. Thornton said
that the Clerk is the responsible
person for the figures which were communicated
to the Admiralty. ~~He is not responsible for the figures which were communicated to the Admiralty.~~
He is not responsible for the figures which were communicated to the Admiralty.

It is better that Mr. Smith should make a
check that none of the smaller
figures be used, but to send an
impression as to the semaphore figures
would be out of the question.
The report has been out for
some months. Perhaps Mr. Smith
may be contented if Mr. Thornton's
letter is communicated to him
with the remark that Govt. considers
it unnecessary to take further
action.

10
30/3/97

Yes - but I should say that
Mr. T. should have been more
careful & should not have
permitted errors discovered to be entered
in the Admin. Report for 1896-97

of Astronomer (per 10/2)
C. 590 + 916 (21)
C. 1124 (a)
R. Thornton Esq. J.C.S. 9. all
The Collecting Station

To note that the errors
to be noticed in the
Administration Report
1896-97 in accordance
with the H. H. note of 31.3.97
should not be lost
of the Log.

Public DEPARTMENT.

Papers to be read in proceedings:—

Again G.O., dated 189 , No.

Again G.O., dated 189 , No.

Current No. 590 of 1897, dated 10/2, from The Port Astronomer
" " 916 " 1897, " 4/3, " The H. H. Collecting Station
" " 1124 " 1897, " 15/3, " ditto

C.S.

ORDER.

N^o 392 of 6 April 97

Mr. Thornton's letter
N^o 304 of 15th March 97 will
be communicated to the
Port Astronomer with the
remark that Govt. considers
it unnecessary to take any
further action in the matter.

1. Mr. Thornton

2. The errors pointed out by
The Port Astronomer will be
noted in the Administration
Report for 1896-97.

3. Mr. Thornton should have
exercised greater care in
checking the figures embodied
in the report.

(from order)

AK

30/4/97

given for copying 5/1
copied 10/1
examined 10/1
signed 10/1 } 1897

MIN. G.O., No. DATED
189

No.

REF TO C. No.

OF GOVERNMENT A . A A A A A A

OF GOVERNMENT.

NT WITH DITTO.

NOT FILED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL.