

Public (1897) Department.

ORDINARY MS.

G.O., No. 2/2-3

Dated 3-3-97

INDEXED.

[Despatch Abstract.]

Authorizing the Govt. Astronomer to obtain certain apparatus and proceed with his preparations for carrying out the proposed observations of the total eclipse on the 22nd Jan'y 1898, and recommending to the Govt. of India that the expenditure connected therewith may be met from Imperial funds

PRINTED IN G.O., dated

28 May 1897, No. 678

BACK PAPERS.

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

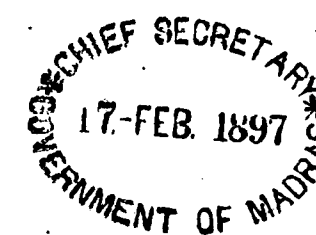
FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.
C no 1344 of 1897			11-2-3-30-4-97				
C no 1877 of 97			673-91, 28/5/97				

Public (1897) Department.

CURRENT No. 650-

Order



From

The Govt Astronomer,
Madras

No. 40

Dated 16th February 97

Received 17th } February 97.
Registered 18th }

Enclosures

Spare copies

SUBJECT.

Requesting general
instructions with regard
to the instruments required
for the total eclipse of the
sun which occurs on the
22nd January 1898.

G.R.

Please put up papers of any re-
late eclipses of 1869 & 1872

See
4/12/97

Done
18/2/97

Sub up-
ik.

BACK PAPERS.

G.O.	No.	Department.	Date.
	82-83	Pub	27-1-97
	1356	"	20-12-96
	398	"	20-3-96
	2025	"	4-3-96
	80-67	"	14-2-96
	80-67	"	13-2-96
	956-56A	"	19-4-95
	725	"	2-9-95
	359A	"	19-5-95

FURTHER PAPERS.

G.O.	No.	Department.	Date.

Read - again the following papers:
 4011-212 Pub 8 1/3 1/97

CURRENT NO. 650
 THE OBSERVATORY,
 NUNGUMBAKUM.
 Madras, 16 February 1897.

FROM
 THE GOVERNMENT ASTRONOMER,
 Madras.

To
 The Honble Mr. J. F. Price,
 Chief Secretary to Government.

SIR,
 I have the honor to address you on the following matter.
 2. A total eclipse of the sun occurs on the 22nd of next January and the line of totality passes through India. The eclipse is one of considerable importance especially with reference to the question of changes in the condition of the Sun's atmosphere associated with changes in the number of sunspots. This eclipse will take place near the time of minimum sunspots and will yield valuable material for comparison with the results got at former eclipses near the period of maximum sunspots. The circumstances that the line of totality passes through a region which is usually nearly cloudless at that season and that the eclipse happens near midday also render it most important, that full advantage should be taken of this opportunity.

Pub 673 9 2875

3. Expeditions to observe the eclipse will be sent out to India by England, America and, — probably, many other countries and it is taken for granted that this Observatory will take its due share in the work.

4. The Government of India (see G.O. $\frac{2899/22-5}{12-12-96}$) P.O. 1356 A 30-12-96 has already recognised this by permitting certain of the instruments for the Kodakaval Observatory to be indented for so as to enable them to be ready in time for this work, but these will not be — sufficient to meet all requirements.

5. In view of the need for strict economy at the present time, I have drawn up a very — modest programme of work which will involve a minimum outlay on apparatus. It is as follows:—

- (1). Photographs of the corona with the 40 feet lens of the Kodakaval Observatory.
- (2). Photographs of the corona with the twin — telescopes of the Kodakaval Observatory.
- (3). Photographs of the corona spectrum with my "zodiacal light" spectroscope.
- (4). Photographs of the corona ^{spectrum} with my small diffraction spectroscope.
- (5). Eye observations and drawings of the corona. x

b. For (1) it will be necessary to obtain a special camera, since it is impossible to mount a lens of such great focal length equatorially. I believe the cost will be about £25. It will —

also

also be necessary to erect a tube and dark room both of which can be made of compass locally — and will not cost much.

For (2) no additional apparatus is required.

For (3) a quartz lens for forming an image of the sun on the slit will be required costing about £5 and some modifications will have to be made in the mounting which can be done locally.

For (4) and (5) no special apparatus will be — required.

7. It will also be necessary to purchase — photographic plates and an apparatus for — forming a standard mark on each plate. These two will probably cost from £10 to £15.

8. The only other expenses involved, so far as I can estimate, will be in the carriage of the observers and instruments to the place of observation and the erection of the necessary pierce.

9. To reduce the cost of this as far as possible I propose to select a site close to the railway line probably at Taragaon, not far from Sahara.

10. If, as I hope, a party from the G. I. — Survey of India joins me the forming of the camp will be greatly simplified and the cost will be small, but it is impossible for me, having no experience in the matter, to form an estimate which would be in the least — trustworthy.

11. On the last two occasions on which total eclipses of the sun took place in India, 1869 and 1872, expeditions were sent by the Madras Observatory to Masulipatam and Avauashi and cost much larger sums than will be required to carry out my present programme.

12. I have the honor to request the general instructions of the Government on the matter at an early date, so that the necessary preparations may be begun in ample time

I have the honor to be,

Sir,

Your most obedient Servant,

Christine Smith
Govt Astronomer.

Asst
NOTE FOR THE UNDER SECRETARY.

① I am not aware that the apparatus for the Kodai Observatory has yet been supplied. It has been sanctioned and a portion will be obtained in time for the observations in Jan'y 98 vide A Imperial supplies rendering for building the Kodai Observatory and there is hardly any question as to it paying for the instruments as well.

Please see the note flapped H

In 93 this Govt stated it had no objection ~~expressed~~ its willingness to the transfer of the Madras Observatory and the funds connected with it to the Govt of India with effect from the 1st April 1894 E
Yours

Received
Asst Secy
11/11/97

It from Ft will
be seen that pending
the construction of
the Kodai Observatory
the transfer has
not yet been
made.

② The Madras
Observatory is
still under Provincial
pending the transfer.
The Provincial
will not have anything
to do with the Kodai
Observatory: and
from the notes on p. 10.
75996 it is clear
that Mr. Eliot hint
that ^{this} foot should
give something has
not been received
con amore

③ There will
be no harm
in asking.
It seems however
immaterial whether
India pays or
whether the reduction
under Scientific

[G.]
76

4,000-26-11-04

NOTE FOR THE UNDER SECRETARY.

* Memo & Sept. be
enjoined and
this foot be req
to pay.

④ No papers
can be traced
regarding the
solar eclipses
of 1894-95. But
please see
para 6 of the
Report in G.O.
393/94 Ptd/20th
May 95 &

Cw
23/2/97

6

(2)

5.

4

AK.
23/2/87

C. No. 650.

SUBJECT.

*The total Eclipse on the 22nd
January 1898*

3. H. E. THE GOVERNOR.

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

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

FOR ORDERS.

Adverting to the observations which will be made in connection with the total eclipse of the sun on the 22nd January next and to the obvious importance of such ^{these} observations, the Government Astronomer presumes that the Madras Observatory will take its due share of the work.

In view however of the present financial pressure he submits for the orders of Govt. the following ~~request~~ ^{although} programme, and remarks that ~~India~~ India, recognizing the importance of the event, has permitted certain instruments for the Kodaikanal Observatory ^{to} be ~~indented~~ ^{indented} for earlier than ~~these~~ ^{these}, these will not meet all requirements:-

" (1) Photographs of the corona with the 40 feet lens of the Kodaikanal Observatory.

(2) Photographs of the corona with the twin telescope of the Kodaikanal Observatory. *This involves no additional expenditure of apparatus.*

** vide its letter in No. 1356 P.O. dtd 30.12.96
printed in page 3 of No. 1098 P.O.
25.8.97 E*

In 1869 No 2120 were auctioned
for work done to the instrument to adapt
for observing the eclipse at Illam-
lipalam (Eg) and in 1872 John
Sanborn of No 3224 incurred in connection with the "Averymachy Eclipse"

This was for not one brass band
alone. I cannot find any bill
for the actual cost of
the celebration in Hamilton.

8 out of 10
No. 1296 - 5. 1966
has two separate Knees
and fittings

All. ~~additionally~~ I don't think an
 23-297 the whole thing would not cost
 much above Rs. 2000 - say Rs. 2500
 at the outside - That the Govt. of India

would be at all disposed to believe in this case
 the Rs. 19,000 should be paid. It might be that
 justice as the observations would be made
 for the benefit of the scientific world in general
 of bearing the charges: at any rate there would
 be no harm in trying it on.

24/2/97.

Very well - try it on in the
 meantime tell the Govt. Astronomer
 that he may try his in-
 struments opened with his other
 arrangements.

25/2/97 25/12/97

I cordially concur.

A.H.

26.2.97

[G.]
 500-28-10-96.

Public DEPARTMENT.

Papers to be read in proceedings:—

Again G.O., dated

189 , No.

Again G.O., dated

189 , No.

Current No.

of 1897, dated

16/2,

from

the Govt. Astronomer

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" 189 ,

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ORDER.

N° 212 of 3-3-97

148 Reg Govt

Draft letter to India

on a matter of routine

20

4-3-97

The Govt. Astronomer will be
 authorized to obtain the apparatus
 specified in paras. 6 and 7 of his
 letter, and to proceed with his prepara-
 tions for carrying out the proposed
 observation of the total eclipse of
 the sun which will occur in January
 next.

2. The following letter will be
 addressed to the Govt. of India.

from orders

M.

1-3-97

15/3/97

LETTER:-

N° 213.

To

The Secretary to the Govt. of India,

Rev. and Agri. Dept.

SIR,

With reference to the subject
 of para. 1 of Mr. Sly's No. 2000/22-5
 of the 12th December last, I am directed
 to forward herewith for the informa-
 tion of the Govt. of India, copy of a
 letter

To
 The Govt. Astronomer

W
 clear copy of the current
 order to be sent to
 4/4/97 15/3/97

4-3-97

3-3-97

letter from the Govt. Astronomer, Madras,
No. 40, dated 16th ^{ult.} instant, submitting
proposals for observing the total

eclipse of the sun which will occur in
January next. *the Govt. of India has already*

2. In view of the existing
financial exigencies, Mr. Michie Smith
has restricted his proposals so as to
involve a minimum outlay on apparatus;
they are as follows:-

"(1) Photographs of the corona with the
40 feet lens of the Kodaikanal Observa-
tory.

(2) Photographs of the corona with
the twin-telescope of the Kodaikanal
Observatory.

(3) Photographs of the corona spectrum
with my "zodiacal light" spectroscope.

(4) Photographs of the corona spec-
trum with my small diffraction spectro-
scope.

(5) Eye observations and drawings
of the corona."

3. The only ^{extra} apparatus
asked for is the special camera <sup>(which
is necessary)</sup> and a quartz lens and
plates at a cost of about Rs. 25, Rs. 5
and Rs. 10-15 respectively; a tube and
dark room will also be required but
they can be made of canvass locally at
a small cost.

4. Mr. Michie Smith has been
authorized to obtain these articles
and to proceed with his preparations
for carrying out the proposed observations.
It is anticipated that the total
expenses inclusive of the carriage

*Mr. Michie's No 2899/22-5
of the 12th December last,
recognized the exceptional
opportunities for observation
which the eclipse will afford.*

of the observers and instruments to
and from the place of observation,
which will be in the Bombay Presidency,
will amount ^{to} between Rs. 3,000 and
4,000. Owing to the reduction by the
Govt. of India of Rs. 19 lakh under 26
Scientific and Minor debts, which was
demurred ^{to} by this Govt. in para. 50 of
appendix B to letter to the Finance
and Commerce dept. No. 905 Financial,
dated 29th December last, this Govt. is
left without funds to meet this small
yet highly desirable outlay.

5. As the special camera will
hereafter form part of the equipment
of the Kodaikanal Observatory and as
in view of the fact that
the proposed observations will be made
for the benefit of ^{the} scientific world in
general, I am to submit ~~with~~ the strong
recommendation of His Excellency the
Governor in Council that the ~~expenditure~~
~~the~~ expenditure may be met from Impe-
rial funds.

*Provision of instruments for the
Observatory at Kodaikanal
is already a charge on local funds,
and at least of the
apparatus now required
will be so far as to
be met here.*

from records.

*30/3
11/3/97*

6. I am to add that ^{in anticipation of sanction} the Govt. of India has
been authorized to proceed with the article named
to proceed with the preparations for
carrying out the proposed observations.

*From Madras
12/12/97*

1-3-97

given for copying 3/4/97
copied 4
examined 4 } 189
signed

MAIN G.O., No. DATED
189

MENT No.

as to C. No.

OF GOVERNMENT

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OF GOVERNMENT.

MENT WITH DITTO.

NOT FILLED UP, BEING MEANT FOR DESPATCH
IN ORIGINAL.

N.B.-
A = Copy in full.
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