

Antervedi Lighthouse

Estd.1971

VISAKHAPATNAM DIRECTORATE MASTER LEDGER

1. **Name** : ANTERVEDI LIGHTHOUSE CUM
D.G.P.S. STATION
2. **Sr.No.**
(In A.L.O.L) : 0957
3. **Position** : Lat: 16⁰ 19' 01.118 N
Long: 81⁰ 43' 32 .844 E
4. **Elevation** : 29 mtr above MSL
5. **Characteristic** : Flash (2) White every 15 Sec
(FL0.4+ec3.4+FL0.4+ec10.8)
6. **Range in nautical miles**
 - i) Luminous : 27 NM
 - ii) Geographical : 15.5 NM
7. **Lighthouse Tower**
 - i) Type : Square Masonry Tower
 - ii) Height : 26 Mtr
 - iii) Colour
Scheme : Red & White bands
8. **Optical Equipment**
 - a) **Optic**
 - i. Make : M/s. BBT
 - ii. Size : 300 mm (4th order) Revolving
 - i. No. of Panels : 4 (2 group of 2)
 - ii. Area of dioptric
portion : 1125 Sq. cm
(corrected area portion 782 Sq.cm)
 - iii. Area of
atadioptric
portion : 3194 Sq. cm
(corrected area portion 2651 Sq.cm)
 - iv. Divergence



- Main/Service : Horizontal 4⁰ 58', Vertical 2⁰ 1'
 - Standby : Not Provided
 - Emergency : Not Provided
 - v. Duration of flash
 - Main : 0.41 seconds
 - Emergency : ---
 - b) **Pedestal** : Mercury floats (44.5kg in use)
 - c) **Rotation Device** : Twin stepper motor Direct drive system.
 - i) 2 No's Unique Make Stepper motor 20 Kgs
 - ii) 2 No Unique make Stepper Motor Controller.
 - d) **Rotation Speed** : 02 RPM
 - e) **Illuminant**
 - i) Main/Service : 3 x 150 Watt Metal Halide Lamps in Cluster form.
 - ii) Standby : Nil
 - iii) Emergency : Nil
 - f) **Effective Beam Intensity**
 - i) Main/Service : 9,39,600 cds.
 - ii) Standby : Nil
 - iii) Emergency : Nil
9. **Lantern**
- i) Diameter : 2.5Mtr
 - ii) Height of glazing : 1.3 Mtr
 - iii) No. of panels : 20 Nos.
 - iv) Ventilators : 9 Nos.
10. **UPS for main Lamp** : 3 No's (Each Lamp has one UPS)
- Make : UTL (Combo sine Wave)
 - Sr. No. : PCS8125869, PCS8125869, PCS8125869
 - Capacity : 800VA

- Battery : 3 No's (12V, 150AH Tubular Exide Battery)
11. **UPS for Stepper motor** : 1 No.
- Make : UTL (Combo sine Wave)
- Sr. No. : P81218116
- Capacity : 800VA
- Battery : 12V, 150AH Tubular Exide Battery

12. Lamp Changer : Cluster form

13. **Energy Source**

- A) APEPDCL Mains : Local Mains supply 440 V, 3 phase, 50 Hz.
- B) Green Energy : 3KW off grid solar power plant for Main light.
- i) Solar panels : 12 Nos. 24V/250W(Vikram make)
- ii) Battery Bank : 12 Nos. 12V /150Ah (Tubular Exide battery)
- iii) PCU : Luminious Make 3.5KVA /48V PCU
- C) Green Energy : 15KW on grid solar power plant for LH & DGPS.
- i) Solar panels : 60 Nos. 24V/250W(Vikram make)
- ii) PCU : Delta Make 15KVA /Model no – RPI-M15A

14. **Diesel Engine Generators**

S. No.	Engine No	Make/Type	HP	No. Of Cylinder	RPM	Cooling
1	03.8901/1620331	Kirloskar HA394 TC1 G1	32	3 Nos.	1500	Air cooling
2	03.8906/1720797	Kirloskar HA394 TC1 G1	32	3 Nos.	1500	Air cooling

15. **Details of Alternator**

S.No	SR No	Make/Type	KVA	voltage	Freq.	Phase	RPM
1	CS3B017G12100-H	Kirloskar KG-184B	25.0	440 V	50 Hz	3 ϕ	1500

2	CS3B017H14697-H	Kirloskar KG-184B	25.0	440 V	50 Hz	3 ϕ	1500
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16. Automatic Voltage Stabilizers : 2 Nos.

Make : Supra hi-tech, Sr no18040045, 18040046.
Model : SH-3150
Type : Servo stabilizers
Capacity : 15 KVA
Input : 330 V - 470 V
Output : 400 V \pm 1% V
Frequency : 50 Hz

17. AMF Panel

Make : Elect India
Model : MSV-EMF 25K3G2-S1910
Capacity : 25 KVA

18. NAIS Equipment

Make : M/s. SAAB
AIS R40 Base Station : S.No.5218
AIS R40 Base Station : S.No.5273

(Connected with Cisco switch and HUGHES HT-2300 Satellite modem.)

V- SAT Dish Size : 2.4 Mtr dia
VHF Antenna : 2 Nos.
GPS antenna : 2 Nos.
Date of commissioning : 21/12/2012

19. **Details of Automation of Lighthouse.**

Make : M/s Recktronic Devices & Systems, Pune.
RDS Control Panel : 1No. in power house. (S.No.1715)
RDS Control Panel : 1No. Service room. (S.No.1716)
For RCS : 2 No's HP computer systems & 1 No HP Laser Jet Printer P1108.

RCS Stations : Machilipatnam, Nagayalanka, Ravaport & Sacramento Lighthouses

Uninterrupted Power Supply : 2 Nos.
(1No. for power panel & 1No. for computer)

Make : APC Backup, RIN848

Input : 220-240,10A,50/60Hz

VSAT Antenna : 1.2 Mtr. dia

Date of commissioning

Automation : 21/12/2012

SCADA : 22/05/2013

20. Differential Global Positioning System (DGPS)

A) Reference Station (RS-1) : ID 436

Make : Leica, USA

Model No. : MX 9310

Serial No. : EMS-020

GPS Receiver : MX - 9400 R, 12 channels

Modulator : MX 50 M MSK Modulator with P.S.

Antenna : Choke Ring with cap Sr.No.7654

B) Reference Station (RS-2) : ID 437

Make : Leica, USA

Model No. : MX 9310

Serial No. : EMS-021

GPS Receiver : MX - 9400 R, 12 channels

Modulator : MX 50 M MSK Modulator with P.S.

Antenna : Choke Ring with cap Sr.No.7656

C) Integrity Monitor

Make : Leica, USA

Model No. : MX 9320

Serial No. : EMS-019

GPS Receiver : MX - 9400 R, 12 channels
Modulator : MX 52 R MSK Demodulator with P.S
Antenna : Choke Ring with cap Sr. No.7661
Beacon antenna

D) Dual Transmitter

Make : Southern Avionics Company SAC, USA
Model No. : SLF – 30091
Type : NARB05A/02A
Serial No. : 9596A0004
Operating frequency : 320 KHz
Power Output : 500 W
Antenna : T type with 2 wire
Date of Commissioning : 6/2/2003

E) Automatic Tuning Unit

Make : M/S Nautel INC, USA
Model No. : ATU –HP
Serial No. : B315
Operating frequency : 295 KHz
Input Power : 230 V, 50 Hz, Single phase
Antenna : 30 mtr GI trestle tower 2 Nos for wire

F) Uninterrupted Power Supply : 02 Nos.

i) Make : HYKON
Model : HT 1102L
Capacity : 2 KVA
Serial No. : 181001949
Battery : 12 V, 26 AH Exide SMF 4 Nos.

ii) Make : Hycon
Model : AE 5000
Capacity : 5 KVA
Serial No. : 8122029

Battery : 12 V, 42 AH SMF 10 Nos.

21. **RACON**

- i) Make : Pharas Marine Automatic Power
- ii) Input Voltage : 9 to 36 Volts D.C.
- iii) RACON Sr.No. : 20180761SJP
- iv) Morse Code : B
- v) Date of commissioning : 03/11/2018
- vi) Solar panel : Make –Mnre ,70W
- vii) Charge Controller : Make - GLOW
- viii) Battery : 12 V, 100AH, SMF Exide battery

22. Street Lights : 21 No's 24w Led light fittings with GI poles.

23. No. of Batteries : 1 No. 12 V 100 AH Lead Acid for DG-1
1 No. 12 V 100 AH Lead Acid for DG-2

24. Air-Conditioner (Split type) : 2 Nos.
Make : 2 No's Blue star,
Model : BI-5CNHW18QATX, BI-CNHW18QTX
Sr.No. for outdoor unit : BO-5CNHW18QATX, BO-5CNHW18QATX
Capacity : 1.5 Ton each

25. Stabilizer for Split type A/C : 2 Nos.
Make : Power line
Sr.No. : 0811352, 08025163
Capacity : 4 KVA

26. Fire Fighting equipment

Fire Extinguishers

i) D.C.P. type : 3 Nos.
(5kg Capacity)

ii) Foam type : 2 Nos.
(9 litres capacity)

(10 Fire Buckets : 4 Nos.

27. Communication Facility

: SRT Mobile No:9925799948
e-mail : antervedi-vizag@dgll.nic.in

28. Water Supply

i) Rain water collection tank attached to each quarter
ii) Local Municipality Pipeline
iii) Electric pump with motor 1 HP used for supply of water to Staff Quarter.

29. Land

i) Area : Ac.5.42 Cts.

ii) Demarcation : RCC Compound wall

iii) No. of fruit trees : 27 Nos.

iv) No. of non fruit bearing Trees : 24 Nos.

30. Buildings

: Powerhouse comprising Tx room, store, engine room & Diesel store room. I.Q – 1 no, AE – 1 no, NA-GII – 2 No's, Gareage-1 No (use as spare stores). Twin qtr NA-GIII -1 No and one twin quarters for LHA & LHS. Pump house-1 No, Coil house – 1 No.

31. Staff : i. Asst. Engineer - 1 No.
ii. SRT – 1 No.(Vacant)
iii. Navigational Assistant Gr- II - 2 Nos.
iv. LHA – 1 No.
v. LHS - Vacant
By train up to Rajahmundry, by road Rajahmundry to Razole 95 km. And Razole to Antervedi Devastanam 35km., Antervedi Devastanam to Lighthouse 3 km by walk or Auto.
32. Mode of approach :
33. Facilities available : a) Post Office within 3 km (Antervedipalem)
b) Govt. Hospital within 20 km (Malkipuram)
c) Govt. School within 17 km (Malkipuram)
d) Nationalized Bank with 20 km(Malkipuram)
e) Police Station within 20 km (Malkipuram)
34. Postal Address : Assistant Engineer (Electronics),
Antervedi Lighthouse cum DGPS Station
Antervedi Devastanam Post, Konaseema Dist.
Andhra Pradesh, Pin: 533252
35. **Cost Details**
- i. Construction : Rs. 71,13,492/-
ii. Cost of equipment : Rs.1,02,25,378/-
36. Year of first Light Commissioned : 1971
37. Date of Commissioning : 15/12/1984
38. Subsequent Innovation : 1980, 1997, 2003, 2004, 2012.