

## Results Of Research On Earth Sciences

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**Abstract:** Earth Science is an all-embracing term for the sciences related to the planet earth. The earth science include the study of the atmosphere, oceans and biosphere, as well as the solid earth. It is broader term than geosciences because it includes aspects of planetary science, which is part of astronomy. I have conducted many researches on the Earth Science and invented some related discoveries & inventions which may also be useful in understanding the extent of the use of Earth Science.

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**Key Words:** Geoscope, Indian Monsoon, Cyclones

**Introduction:** I have conducted many researches on the earthquakes during the year of 1980-87 and invented the Geoscope which can help to forewarn the earthquakes in advance. Sri. AJVB Maheswara Rao Member of Parliament (Lok Sabha) was recommended the Geoscope to Sri K. R. Narayanan Minister of science & Technology Department for further research and development in the services of the country. In 1989, the Honble High Court of Andhra Pradesh was also issued orders to the government of India, Ministry of science & Technology, council of scientific and Industrial Research to provide research facilities to carryout the experiments in National Geophysical Research Institute, Hyderabad for Implementation in the service of the country.

**G. R. Irlapati; S Geoscope:** Geoscope means- a mechanical architecture established in between the underground and observatory with the help of borewell proposed for conducting geological studies to know the earthquakes, ores and water currents etc.

A borehole having suitable width and depth has to be dug. An observatory having research & analysis facilities has to be constructed on the borehole Apparatus & sensors to recognize the geo- physical and geo-chemical changes generated in the underground such as foreshocks, chemical changes, electrogeopulses, micro-vibrations, pressure, geomagnetic forces etc should be inserted into the underground and linked with the concerned analysis sections of the observatory that is above the ground to study the changes taking place in the underground.

That means-relative results of geological & geographical researches & developments of past, present and future should be interposed, coordinated and constantly developed. The apparatus related to the geology and geography such as Richter scale etc also should be set in the observatories of the Geoscope. we can make many more modern ideas & modifications

thus bringing many more improvements & developments in the Geoscope.

And we can build many more types of Geoscopes thus connecting many more levels for national wide network, more and required geoscope centers should be established in the earthquake zones where earthquakes occur frequently and there should be establish a central office to co-ordinate and codify the data of warnings about the onset of earthquake. The central office should analysis the data and estimate the time, epicenter, area etc details of the impending earthquake and send to the authorities and people to take precautions.

### National Geoscope Project

Many extensive researches were conducted on the national geoscopic forewarning system to detect the geological changes in advance. In this system, there should be established three level centers i. e., Local Geoscope Centre, Regional Geoscope Centre and Central Geoscope Centre for maintaining the system in a coordinated manner.

**Local Geoscope Centre:** One or more required number of Geoscopes should be established in the expected earthquake zones. The observation personnel in the respective Geoscopes should watch the onset of earthquakes day and night.

**Regional Geoscope Centre:** There should be established a Regional Geoscopic Centre at every expected quake zone to co-ordinate and codify the information supplied by the local geoscopic centers of the zone.

**Central Geoscope Centre:** There should be established a Central Geoscopic Centre to co-ordinate and codify the information supplied by the Regional Geoscopic Centers from all over country in a coordinated manner.

**Performance:** Whenever a Local Geoscopic Centre sends warning about the onset of earthquakes, the observation personal should immediately send the

information to its Regional Geoscopic Centre. The Regional Geoscopic Centre should analysis the information and send it to the Central Geoscopic Centre. The Central Geoscope Centre analyze the information supplied by the Local Geoscopic Centers, Regional Geoscopic Centers and estimates the epicenter, time, area to be affected urban places etc., details of the impending earthquake and send to the authorities, and media and warnings in advance to take precautions.

#### **Types Of Geoscope Models**

**Simple Geoscope:** This is a simple construction involving no expenditure. A deep well having suitable width and depth has to be dug. Construct a room over the well. Wash the inner walls of the room with white Lime. Fix an ordinary electric bulb in the room.

**Home Made Geoscope:** This construction involves no expenditure. Even students, children's and science enthusiasts can make the Home-Made Geoscope and detect the earth-quakes 24 to 28 hrs in advance. By making certain changes and alterations, the house having a well can be converted into a Geoscope i. e., wash the inner walls of the house with white Lime. Fix ordinary electric bulbs in the room.

**Performance:** Observe the colour of the room lighting daily. When the bulb glows, the light in room generally appears white in color, but before occurrence of an earth-quake, the room lighting turns blue in colour. The onset of earth-quake can be guessed by this "Seismic luminescence Emission".

**Principle:** Due to stress of continental plates and some other reasons on a place where there are favorable chances for earth-quake to occur, the pressure is induced in the underground. As a result, there is a steady rise in the pressure around the focus centre. Because of the large disparity in the magnitude of energies involved, gas anomalies such as (a) Helium emission (b) chemico-seismic anomalies of sulphur, calcium, nitrogen etc., chemical compounds (c) seismic atomic radiations of radioactive mineral compounds show up much earlier even at large distance from the epicentre which enter the well through the underground springs. These gas anomalies occupy the room in this manner; emit radiation which gives blue colour (some times red) to the room.

**Micro Geoscope:** Micro-Geoscope is an elaborate construction. For this model a deep bore-well having suitable width and depth has to be dug. An observatory having the most modern high-technological research facilities has to be constructed on that well. Most modern mechanical systems like electronic, physical and chemical sensors and apparatus to recognize the rise and fall of the underground water levels, micro-vibrations and waves generated in the underground, differences in pressure, temperature and other seismic activities should be

inserted into the underground and linked with the concerned research analyzing departments of the observatory that is above the well to observe the seismic changes taking place in the underground. The results of researches on the quakes like Richter scale etc., also should be setup in the Geoscope. That means relative results of past, present and future pertaining to the earthquakes or seismic researches should be interposed, co-ordinate, and constantly developed. We can make many more changes thus bringing many more developments in the geoscope.

Observe the geophysical & geochemical changes such as foreshocks, chemical changes, ground water levels, strain in rocks, thermal anomalies, fractoluminescence's gas anomalies, electrogeopulses, micro-vibrations, pressure, geomagnetic forces, etc taking place in the underground. The onset of earthquakes can be guessed by observing the aforesaid changes in the concerned analyzing departments of the observatory.

**Studies:** I have proposed much type of studies to study the earth's underground through the Geoscope. At present we discuss two types of studies of many of them.

**Seismic Luminescence Study:** This is a very easy and simple study in the Geoscope Project. Construct a room over a well having suitable width and depth. Wash the inner walls of the room with white lime. Fix an ordinary electric bulb in the room. (Otherwise by making certain changes and alternations any home or office having a well can be converted into the Geoscope. Wash the inner walls of the house with white lime. Fix an ordinary electric bulb but don't fix fluorescent lamp in the house. This method involves no expenditure).

Observe the colour of the lightning in the Geoscope room daily 24 hours 365 days. When the bulb glows, the lightning in the room generally appears as white (reddish). But before occurrence of an earth-quake, the room lightning turns violet in colour.

Because, before occurring of an earthquake-gas anomalies such as radon, helium, hydrogen and chemico-mineral evaporations such as sulphur, calcium, nitrogen and other fracto-luminescence radiations show up earlier even at large distances from the epicenter due to stress, disturbances, shock waves and fluctuations in the underground forces. These gas anomalies & fracto luminescence radiations and other chemical evaporations enter into the well through the underground springs. When these anomalies occupy the room above the well, the room lighting turns violet in colour. The light in the room scattered in the presence of these gas anomalies, fracto-luminescence radiations and other chemico-mineral evaporations the ultra violet radiation is emitted more and the room

lighting turns in violet colour. Our eye catches these variations in the radiation of the lighting in the room easily since:

- a) The violet rays having smaller wave length.
- b) The violet radiation having property of extending greatly.
- c) The light becoming weak in the violet region.
- d) The eyes having greater sensitivity to violet radiation.

Due to all reasons the room may appear violet in colour then we can predict the impending earth quakes 12 hours in advance.

**Electro Geopulses Study:** This is also easy study to recognize the impending earth quake. A borehole having suitable width and depth has to be dug. An earth wire or rod should be inserted into the underground by the borehole and linked with the concerned analysis section having apparatus to detect, compare measure of the electric currents of the electric circuit of the earth systems. Otherwise by observing the home electric fans etc. We can also study the electrogeopulses studies to predict the impending earth quake.

Observe the changes in the electric currents of the earth system 24 hours, 365 days. From a power station, the electricity is distributed to the far-off places. Normally the circuit of the power supply being completed through the earth system. Whenever if the disturbances occurs in the layers of the earth's underground, the fluctuation rate will be more due to the earth quake obstructions such as pressure, faults, vibrations, water currents etc., of the earth's underground. So we can forecast the impending earth quake by observing the obstruction of electric currents of circuit of the earth system in the observatory of the Geoscope and also by the obstruction sounds in the electric fans etc.

**Experiments Carriedout:** I have carried out a number of experiments on the Geoscope project and all were successfully proved out in practice. The risk of earthquakes in Andhra Pradesh is less but the source is greater in north India however.

**Indian Weather Time Scale:** I have conducted many extensive researches on the astronomical forces and its effects on the earth climate particularly on various regions of the India. The variations in the solar cycle affects and stimulate the earth climate. The moon affects and stimulate the ocean tides and atmosphere too. The movement of axis of the earth inclined at 23 ½ degrees from vertical to its path around the sun affects and stimulate the earth weather and leads to formation of monsoons and seasons etc. So the astronomical forces affect and stimulate the earth climate it may be more or less but it is true. These scales may be taken as a part of scientific study of astronomical forces & its effects on the earth climate.

In the time and scale of the universe some things from astronomy to atom including living beings have been repeating once in every certain time or period. For example, the south and north magnetic poles have been shifting in every certain period. The sun spots have been repeating once in every eleven years. The lunar and solar eclipses have also been occurring once in every 18.6 years. The seasons such as winter, autumn etc. also have been repeating once in every year in the same month of the year. The periodical menses in the females repeating once in every month.

On the basis of the said universal facts, I have prepared a time scale with 21 blocks, each block containing certain prescribed cycle of years in which similar calendar years repeating one after another that leads similar weather conditions of those previous years to future years likely repeating every year approximately. The rainfall of the years, have been entering in the scale in percentages or as it is pertaining to month, season, annual wise of the each and every year. If we managing the scale in this manner continuously, we may assuming the weather conditions of the anterior years on the basis of the posteriors years weather. On the basis of the principle, we can assume that a considerable, of course it may be little chance of predication for an ensuing years by study the data of earlier years.

I have prepared a model Indian weather time scale along with hundreds of additional scales (1617 scales, 12 months, 4 seasons, 50 regions & 150 above years were studied) in which all weather conditions such as rainfall, temperature, cyclones, river water etc of all homogeneous regions sub-divisions of India were studied and analyzed elaborately.

#### **Studies Carried Out :**

Firstly, see the Indian weather forecasting study model time scale. In this scale, the June, July, August and September months of the summer monsoon season were taken in a table in which the each month is also divided into three parts the Telangana, Rayalaseema and Coastal Andhra regions. The monthly wise rainfall data of the months of the regions from 1870 to till available years are taken in the form of percentages or as it is and entering in the scale pertaining to the region wise of the each and every year. If we managing the scale in this manner continuously, we may assuming the weather conditions of the anterior years on the basis of the posterior years weather.

Example for assuming the dry season or suppose to predict the rainfall situation in the summer season of the ensuing year 2019: study the 7<sup>th</sup> cycle in which wet conditions in 10 years and dry conditions in 14 years were occurred in the month of June : wet conditions in 2 years and dry conditions in 22 years were occurred in the month of July : wet conditions in 4 years and dry conditions in 20 years were occurred

in the month of August and wet conditions in 8 years and dry conditions in 16 years were occurred in the month of September. On the whole, wet conditions in 24 times and dry conditions in 72 times repeated in the summer monsoon season of the 7<sup>th</sup> cycle (As a result, there were dry conditions occurred in the 2002 year also). Therefore it is a considerable chance to predict that a dry season will be repeated in the ensuing year of 2019.

Example for assuming the wet season or suppose to predict the rainfall situation in the summer season of the ensuing year 2022: study the 10<sup>th</sup> cycle in which wet conditions in 13 years and dry conditions in 8 years were occurred in the month of June: wet conditions in 13 years and dry conditions in 8 years were occurred in the month of July: wet conditions in 9 years and dry conditions in 12 years were occurred in the month of August and wet conditions in 19 years and dry conditions in 2 years were occurred in the month of September. On the whole, wet conditions in 54 times and dry conditions 30 times were repeated in the summer monsoon season of the 10<sup>th</sup> cycle. As a result, there were wet conditions occurred in the 2005 years also. Therefore, it is a considerable chance to predict that a wet season will be occurred in the ensuing year of 2022.

In the same manner, we can study the remaining all Indian weather time scales of all Indian Homogeneous regions and subdivisions, states and districts of India.

We can make many more modifications thus bringing many more developments in the Indian weather time scale and its all additional Indian weather time scale.

**Indian Monsoon Time Scale:**The Indian Monsoon Time Scale-a chronological sequence of events arranged in between time and weather with the help of a scale for studying the past, present and future movements of monsoon of India and its relationship with rainfall and other weather problem and natural calamities.

Prepare the Indian Monsoon Time Scale having 365 horizontal days March 21<sup>st</sup> to next year March 20<sup>th</sup> of a required period comprising of a large time and weather have been taken and framed into a square graphic scale. The main weather events if any have been entering on the scale as per date and month of the each and every year. If we have been managing the scale in this manner continuously we can study the past, present and future movements of the Indian Monsoon.

For example, I have prepared the Indian Monsoon Time Scale by Preparing the Scale having 365 horizontal days from 1<sup>st</sup> April to next year March 31<sup>st</sup> of 128 years from 1888 to 2016 for the required period comprising of large time and weather have

been taken and framed into a square graphic scale. The monsoon pulses in the form of low pressure systems over the Indian region have been entering on the scale in stages by 1 for low, 2 for depression, 3 for storm, 4 for severe storm and 5 for severe storm with core of hurricane winds pertaining to the date and month of the each and every year. If we have been managing the scale in this manner continuously, we can study the past's present's and future's of the India monsoon and its relationship with rainfall and other weather problems & natural calamities in India.

#### **Analysis:**

The Indian Monsoon Time Scale reveals many secrets of the monsoon & its relationship with rainfall & other weather problems and natural calamities. For example, some bands, clusters and paths of low pressure systems along with the main paths of the Indian Monsoon (South-west monsoon and north-east monsoon) clearly seen in the map of the Indian monsoon it have been some cut-edge paths passing through its systematic zigzag cycles in ascending and ascending order which causes heavy rains & floods in some years and droughts & famines in another years according to their travel. For example, during 1871-1990's the main path of the Indian monsoon was rising over June, July, August and creating heavy rains and floods in most years. During 1900-1920's it was falling over August, September and causing low rainfall in many years, During 1920-1965's, it was rising again over July, August, September and resulting good rainfall in more years. During 1965-2004's it was falling over September and causing low rainfall and droughts in many years. At present it is rising upwards over June, July, August, and will be resulting heavy rains & floods in coming years during 2004-2060. The tracking date of main path & other various paths such as south-west monsoon and north-east monsoon etc., of the Indian Monsoon denotes the onset of the monsoon, monsoon pulses or low pressure systems. And also we can find out many more secrets of the Indian monsoon such as droughts, famines, cyclones, heavy rains, floods, real images of the Indian Monsoon, and onset & withdrawals of south west monsoon and north-east monsoon etc. by keen study of the Indian Monsoon Time Scale.

#### **Principle:**

This is an Astrogeophysical/Astrometeorological Phenomenon of effects of astronomical bodies and forces on the earth's geophysical atmosphere. The cause is unknown however the year to year change of movement of axis of the earth inclined at 23 ½ degrees from vertical to its path around the sun does play a significant role in formation of clusters, bands & paths of the Indian Monsoon and Stimulates the Indian weather. The inter-tropical convergence zone at the equator follows the movement of the sun and shifts

north of the equator merges with the heat low pressure zone created by the rising heat of the sub-continent due to the direct and converging rays of the summer sun on the Indian Sub-continent and develops into the monsoon trough and maintain monsoon circulation.

### Conclusions:

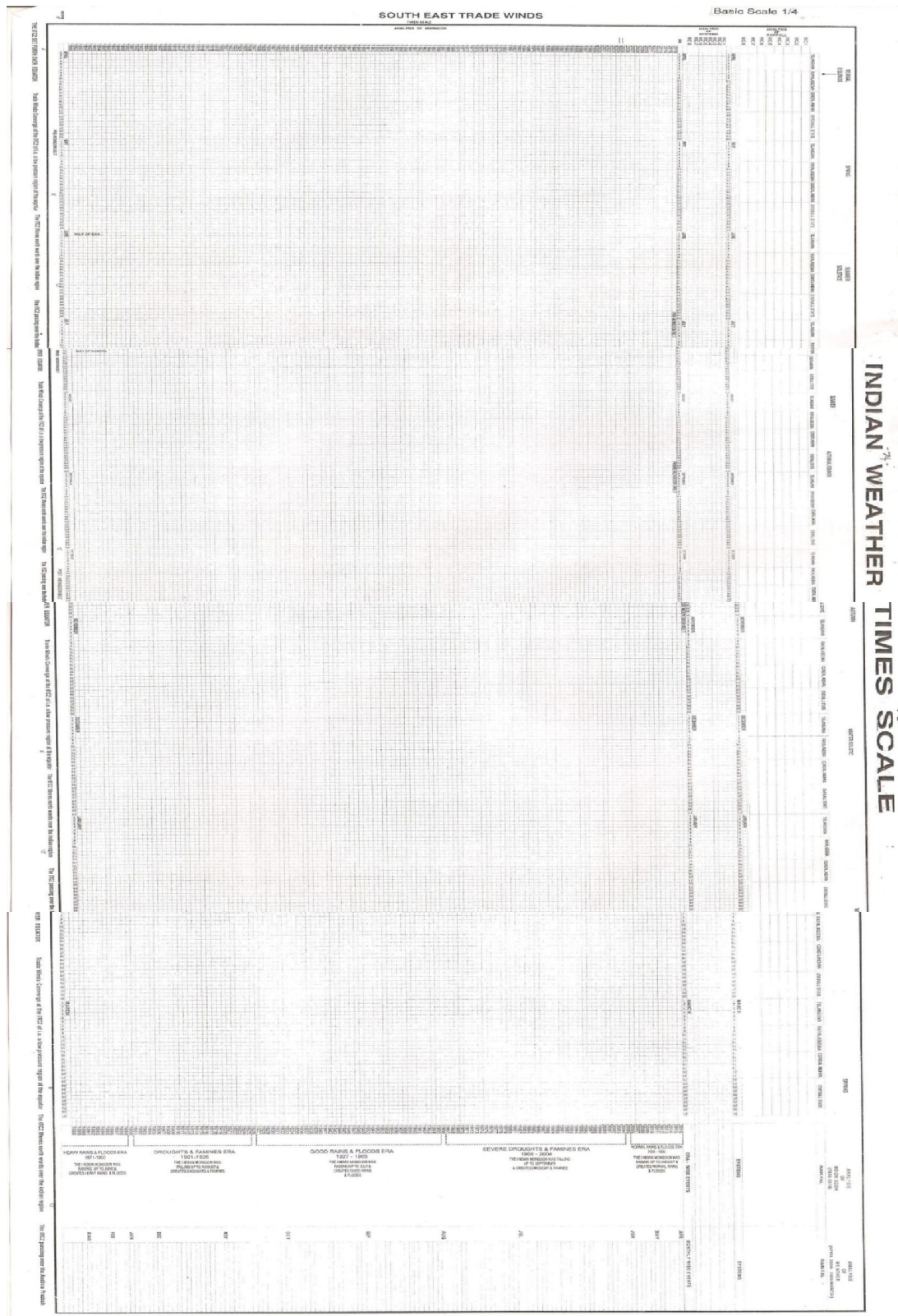
We can make many more modifications thus bringing many developments in the Indian Monsoon Time Scale.

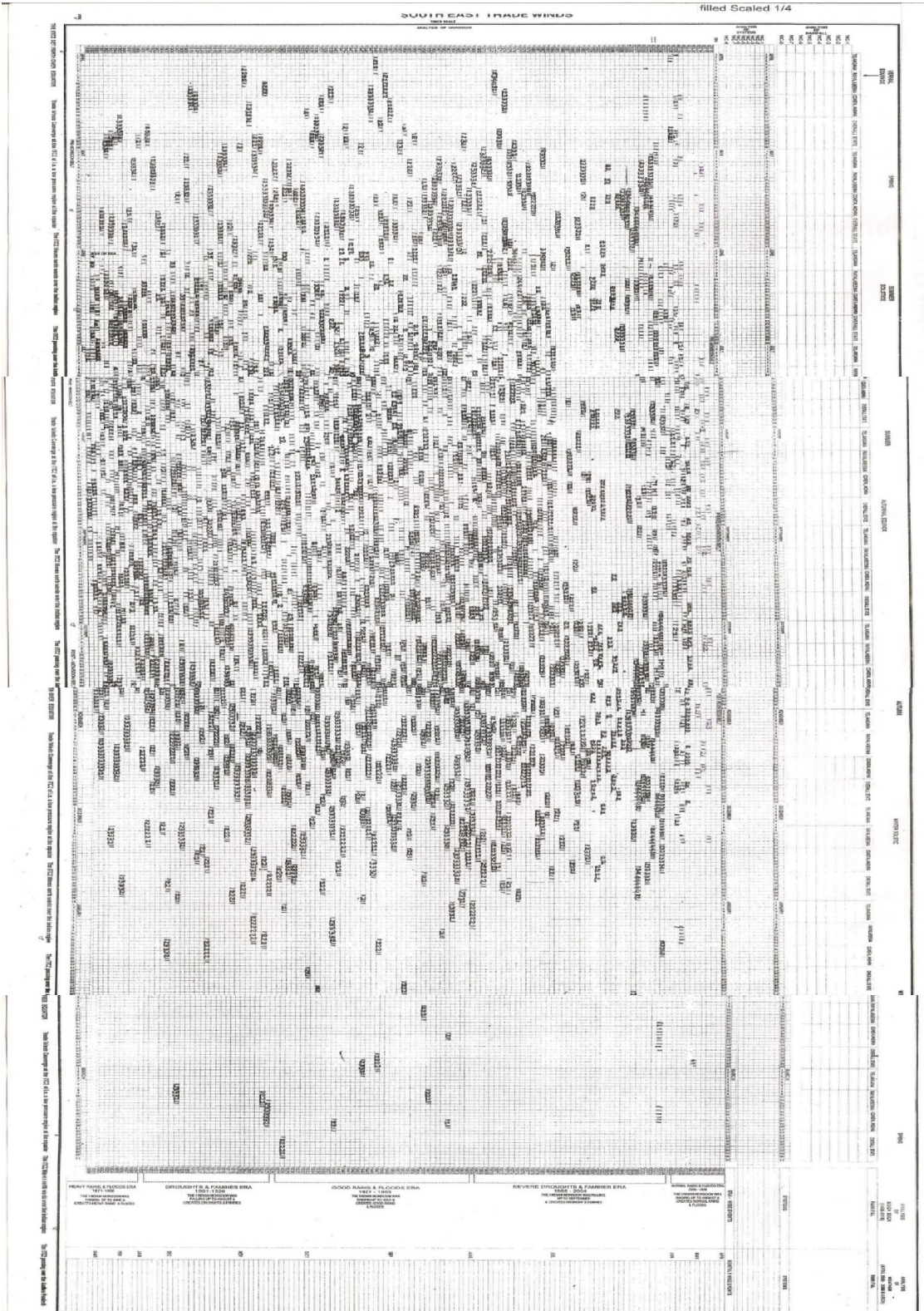
**Note:** This article has been published as Gangadhara Rao Irlapati. **Results Of Research On Earth Sciences.** *Researcher* 2016;8(1s):322-359. ISSN 1553-9865 (print); ISSN 2163-8950 (online). <http://www.sciencepub.net/researcher>. doi:[10.7537/marsrsj0801s16.13](https://doi.org/10.7537/marsrsj0801s16.13).

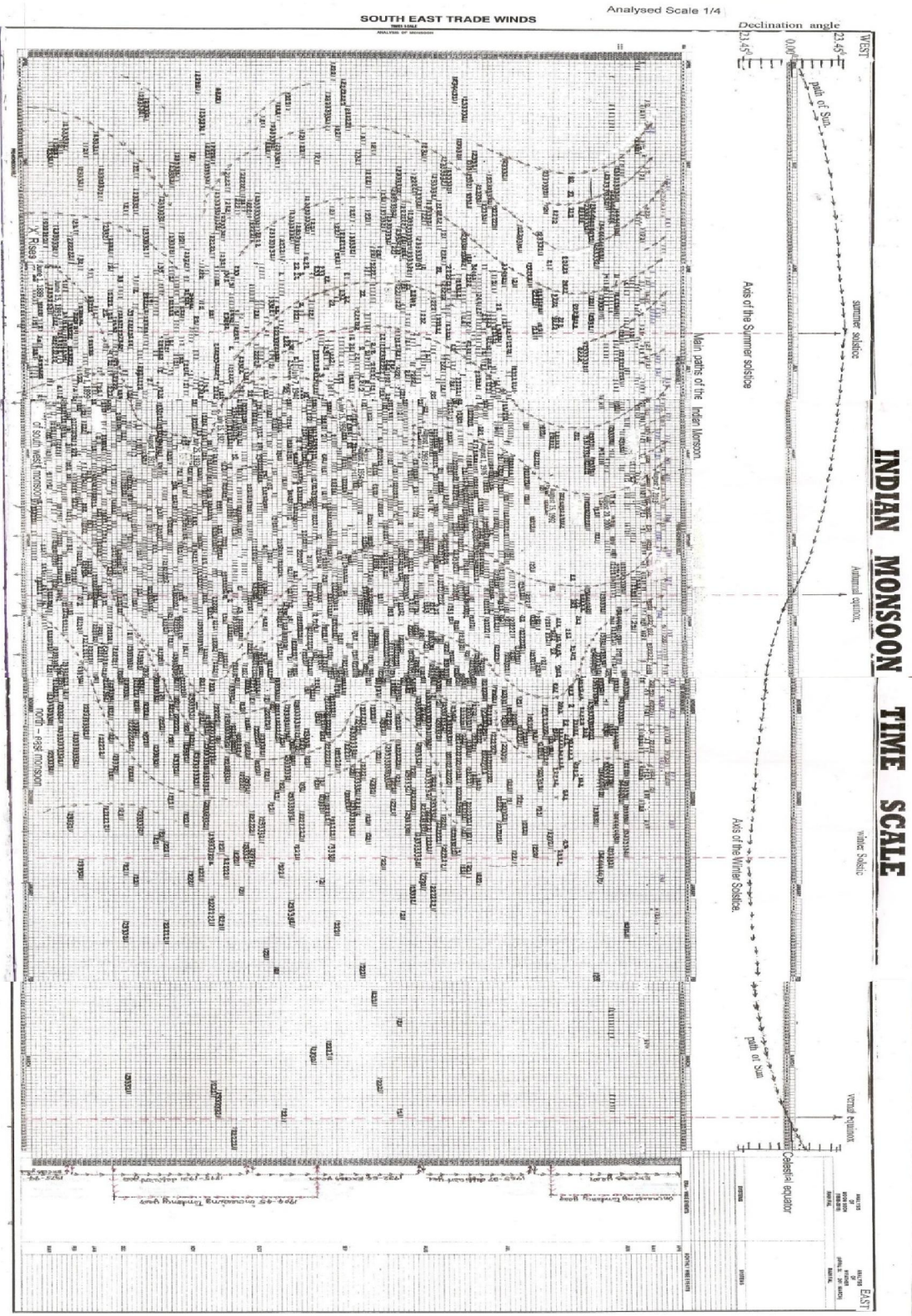
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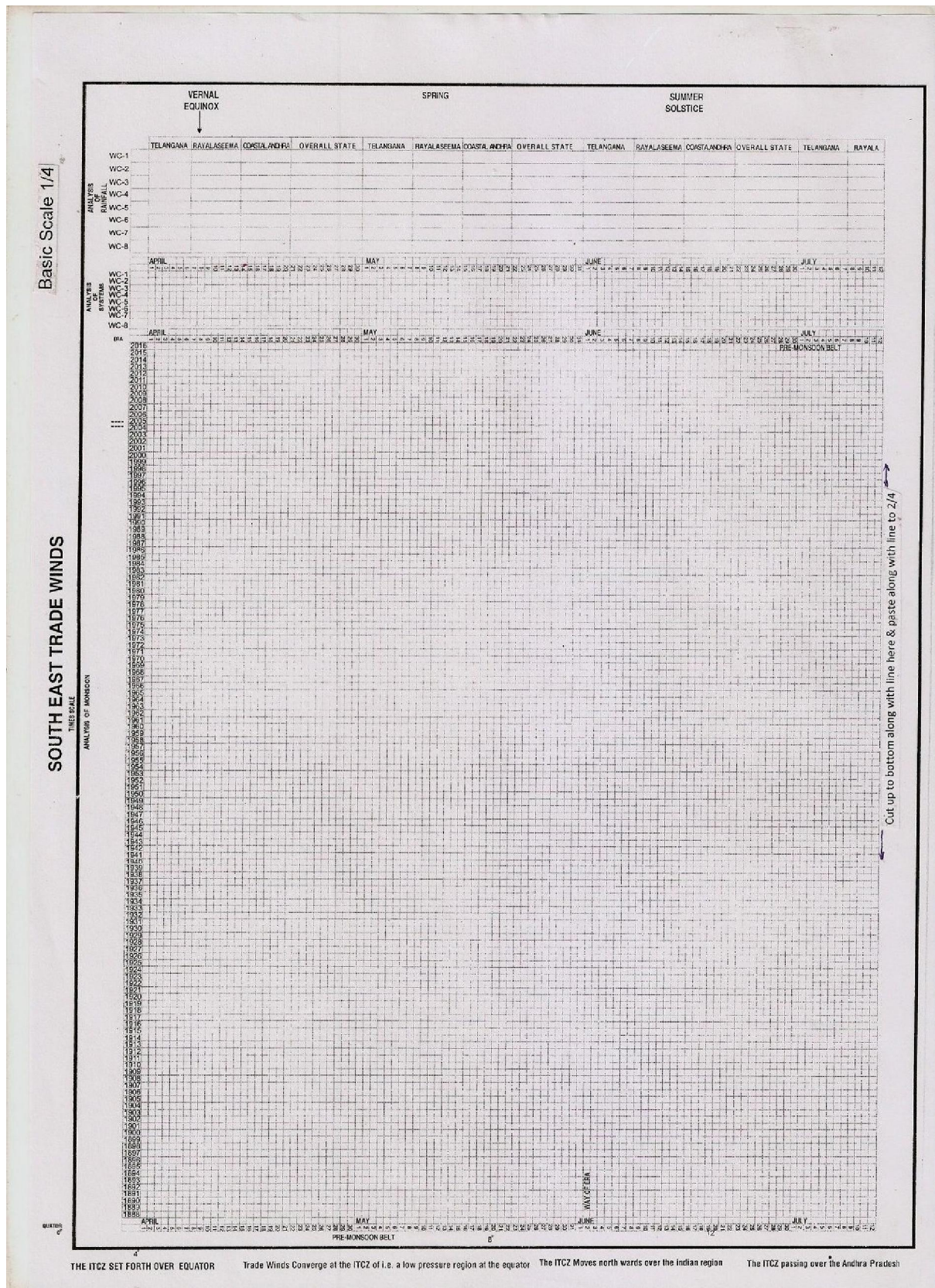
**Appendices: (Indian Monsoon Time Scale)**

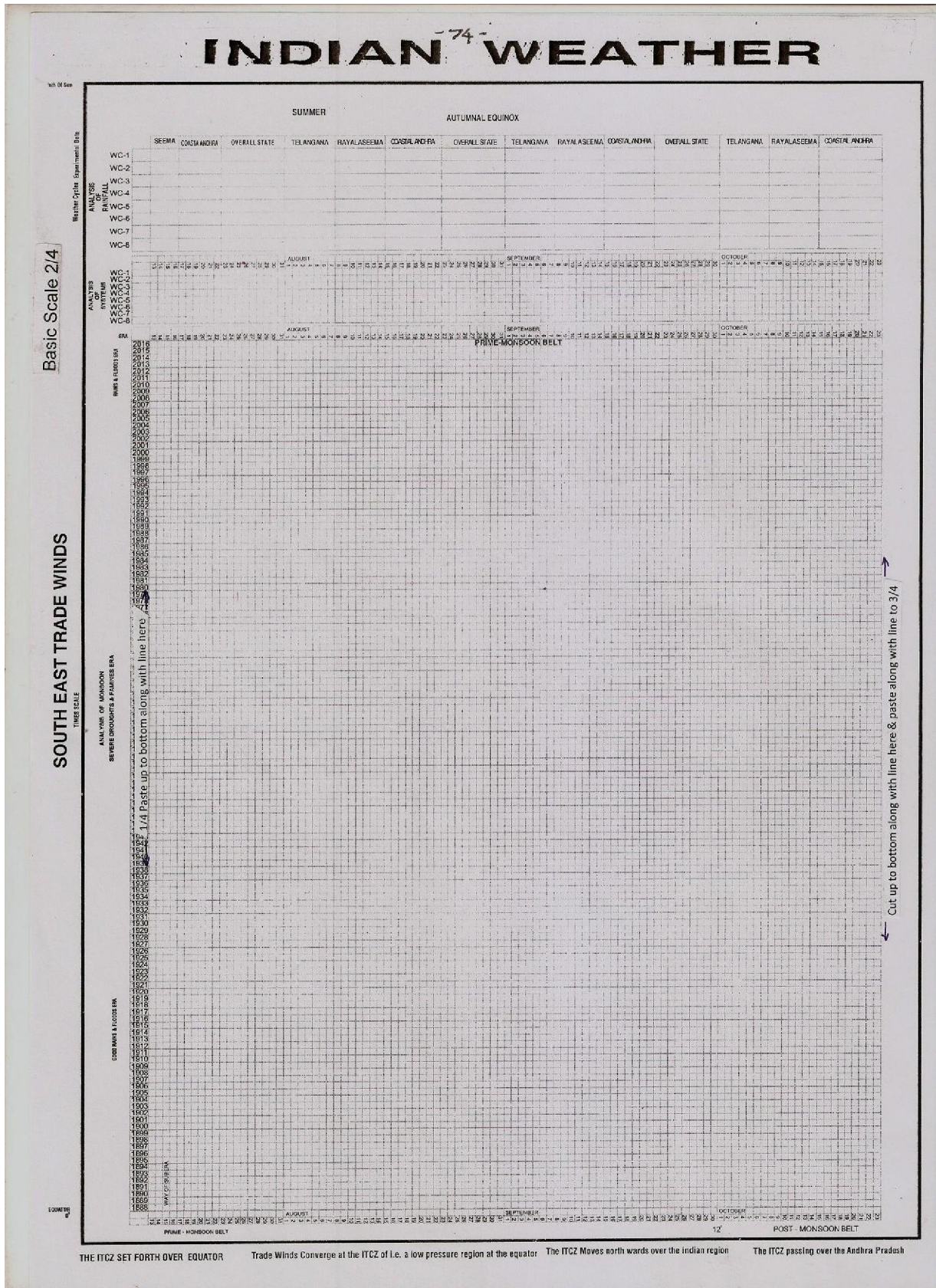


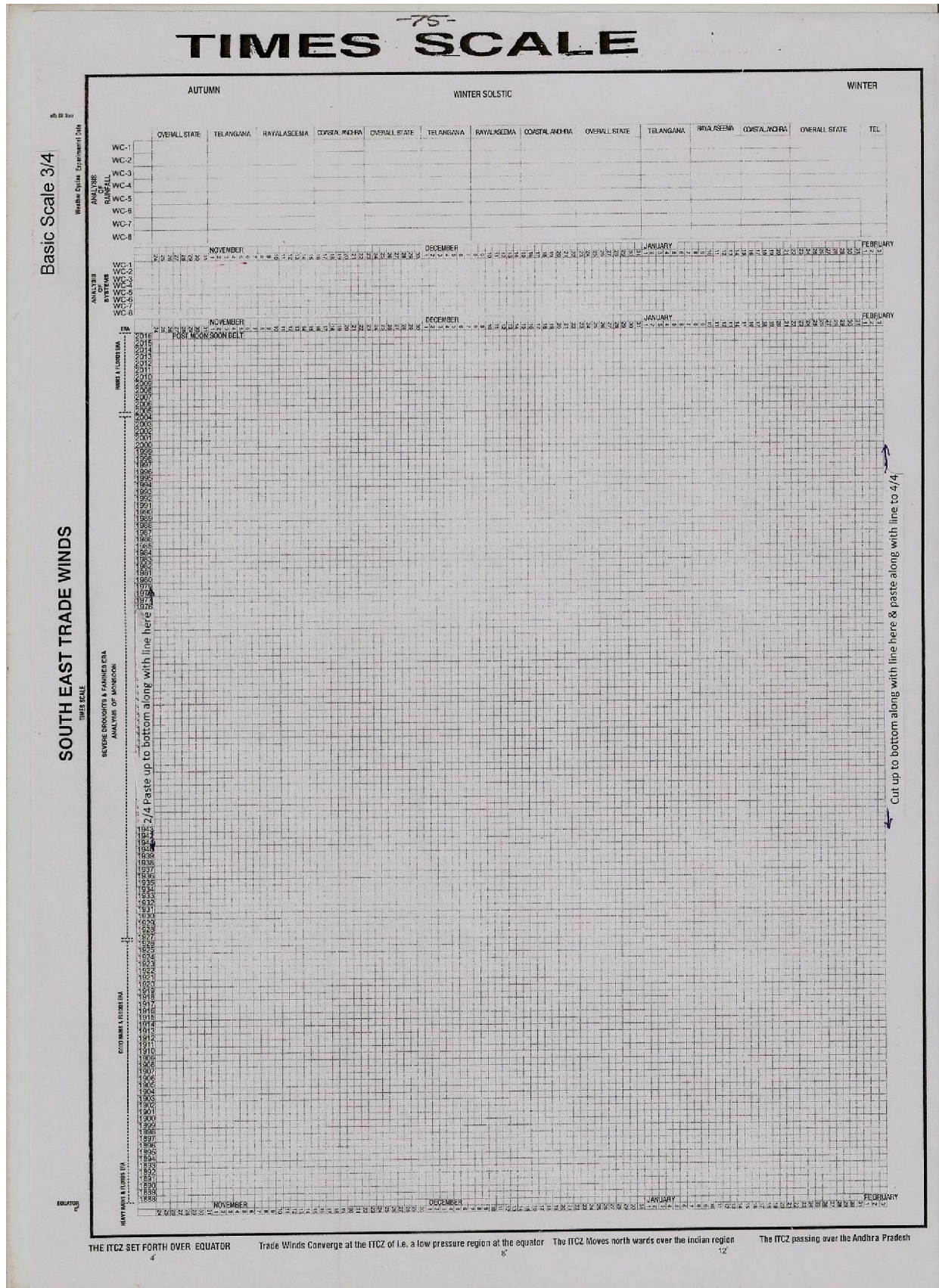


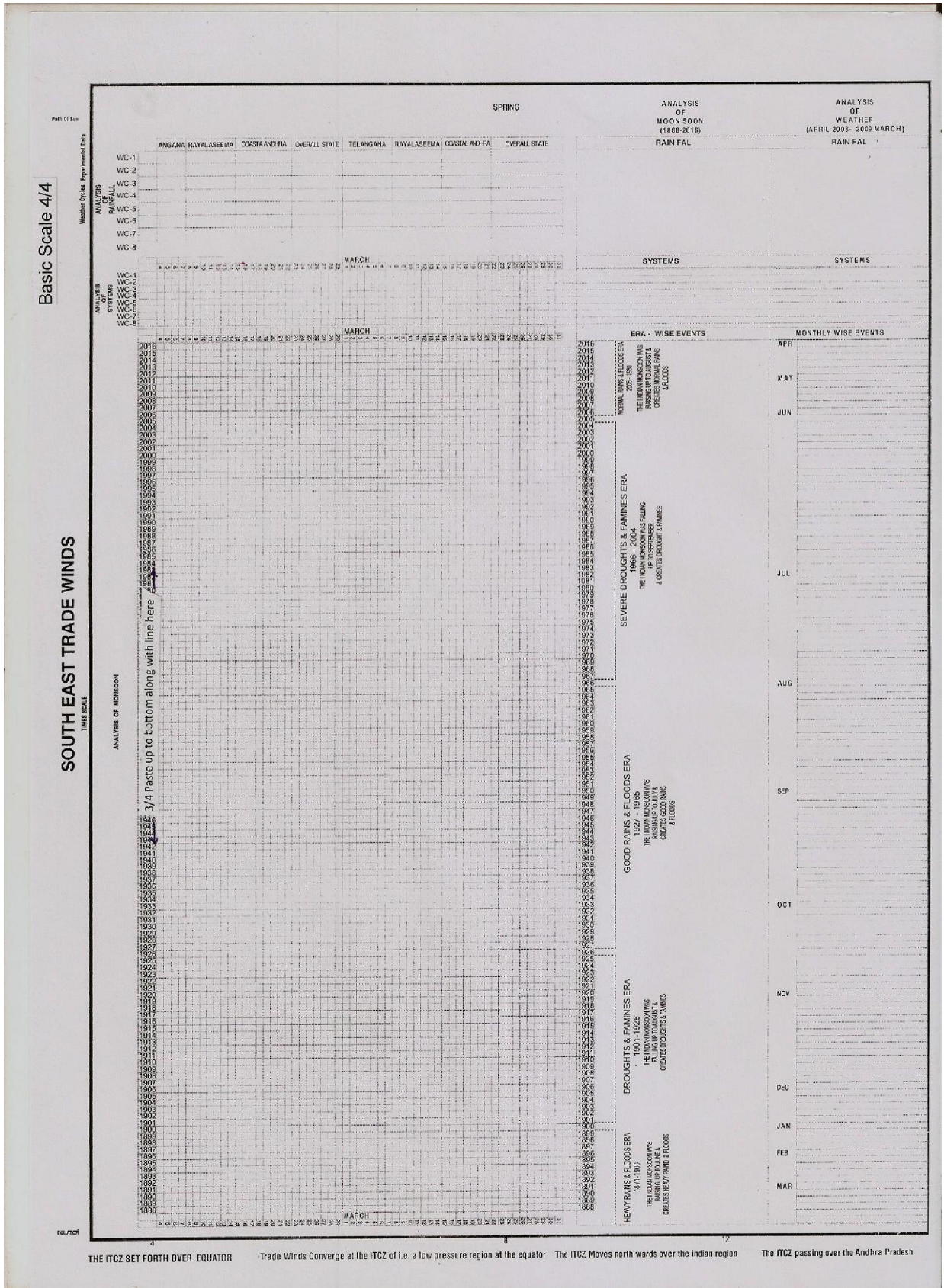






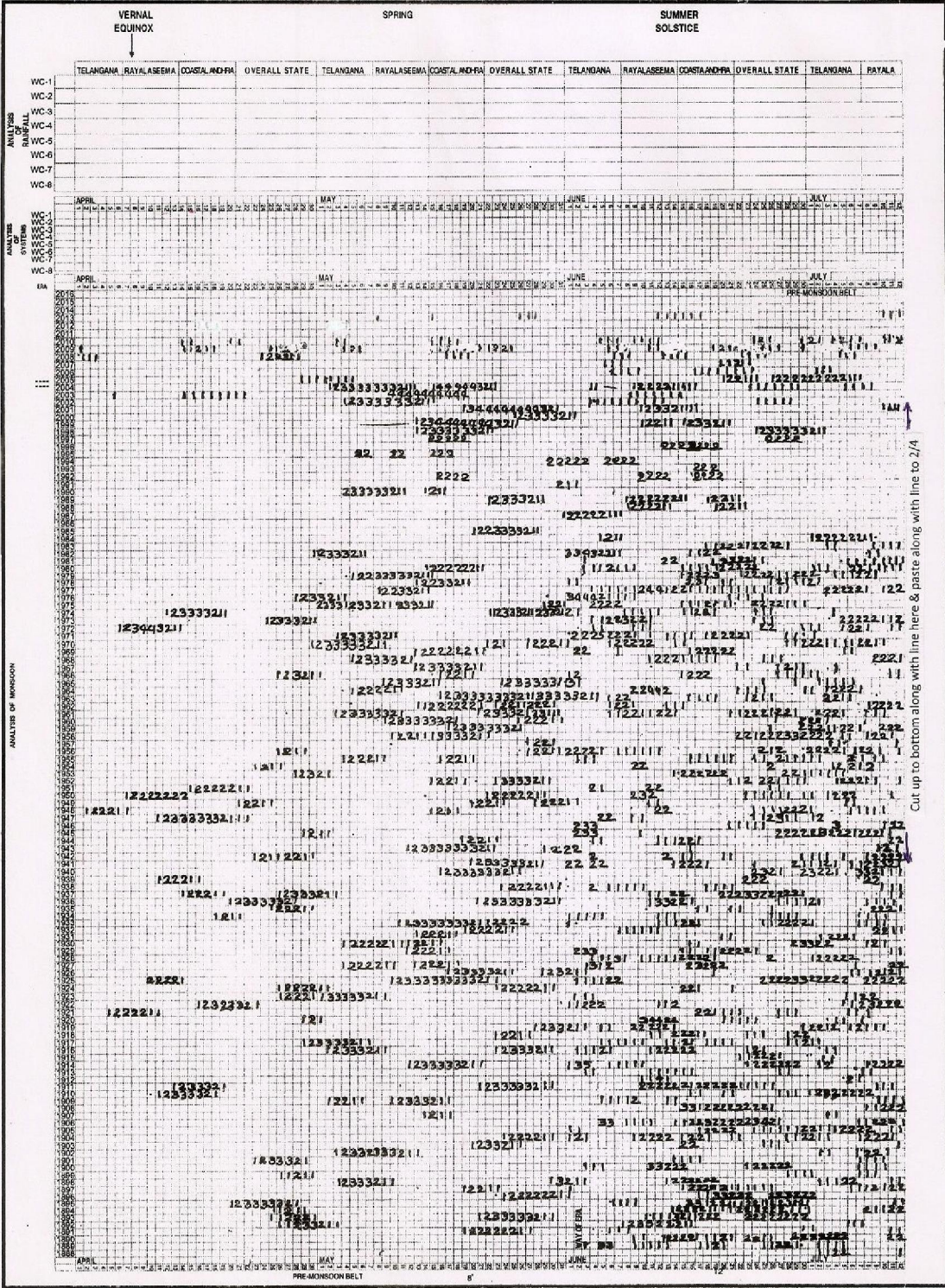






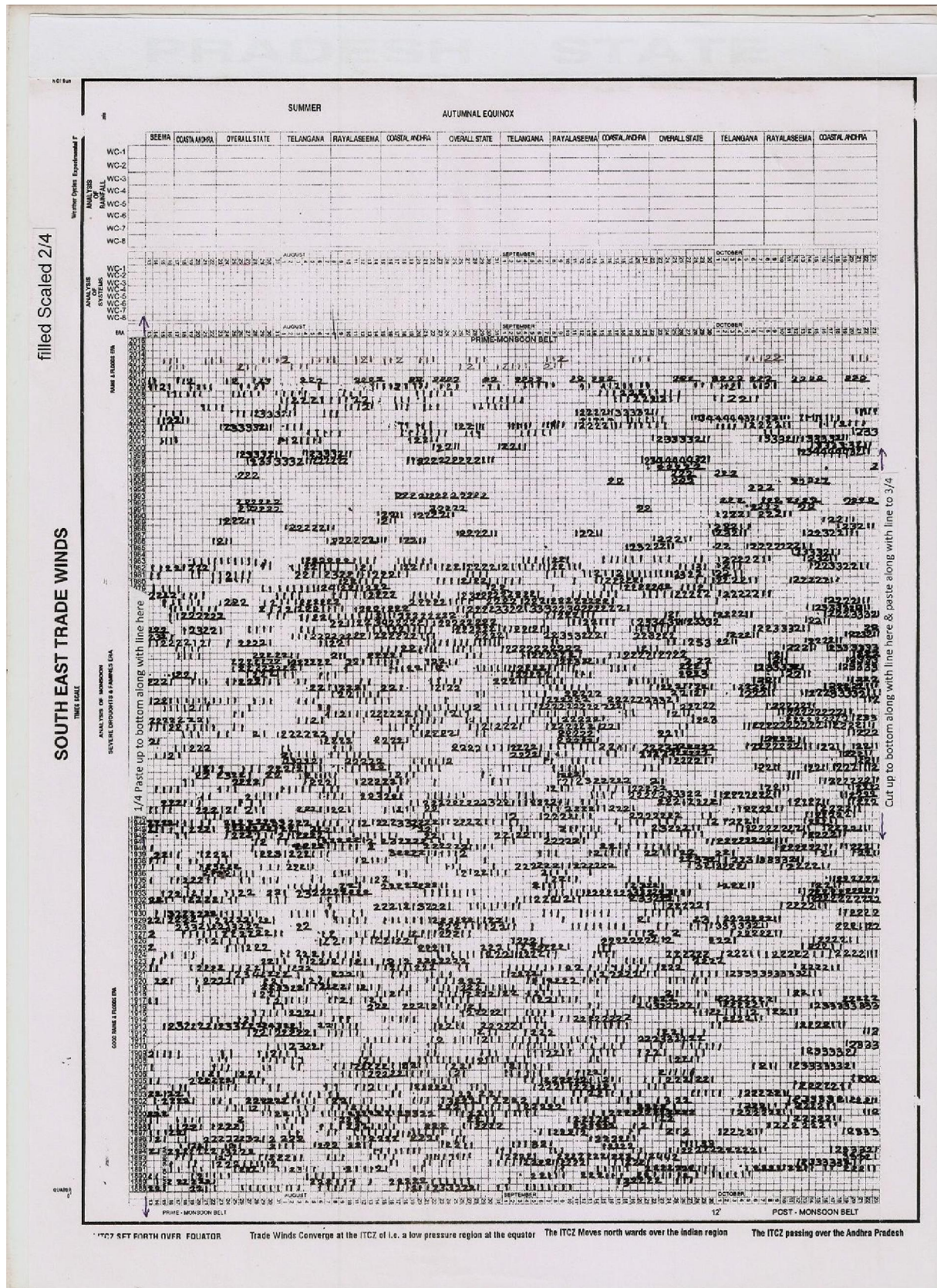
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SOUTH EAST TRADE WINDS  
THREE SCALE  
ANALYSIS OF MONSOON

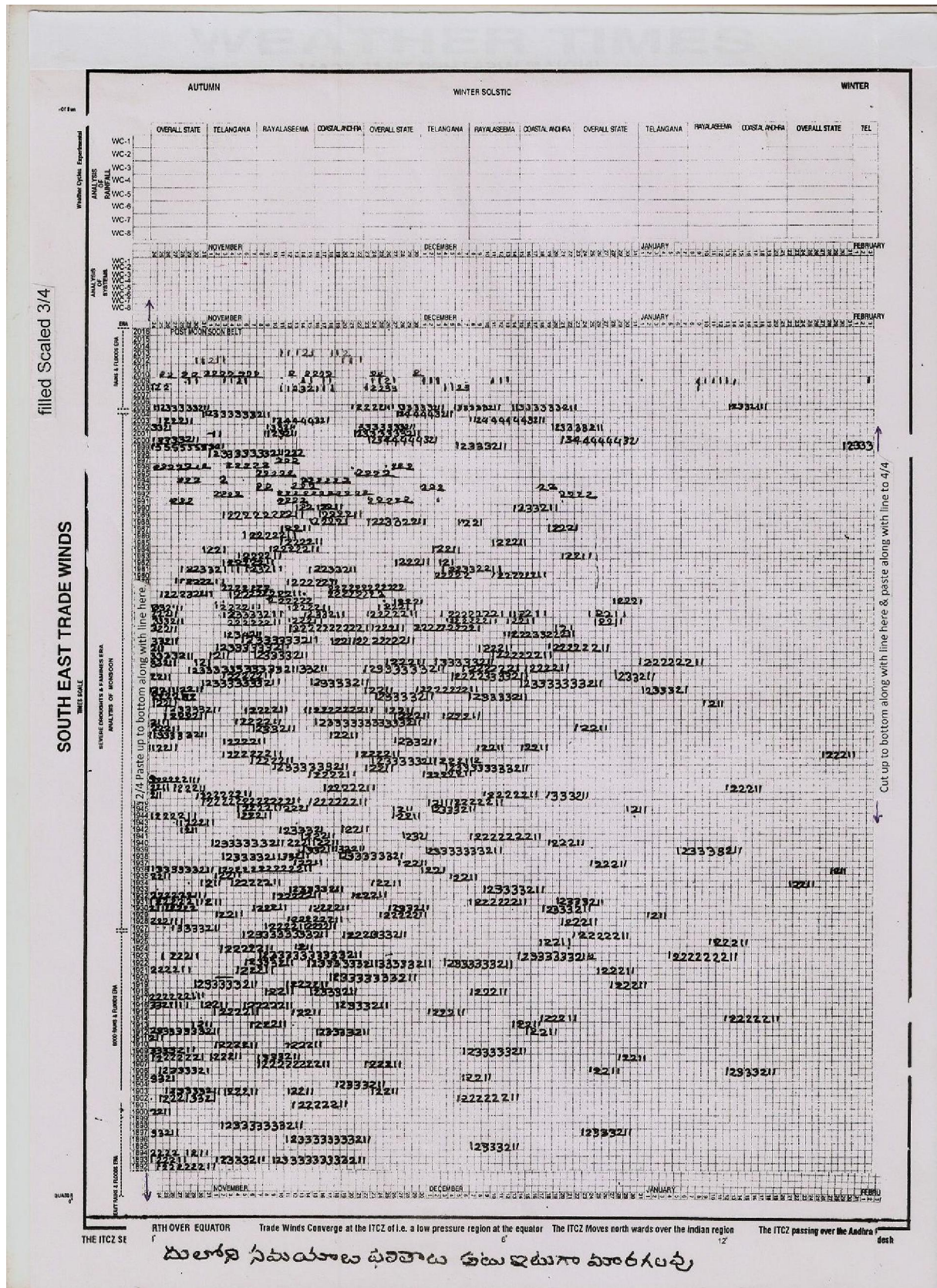


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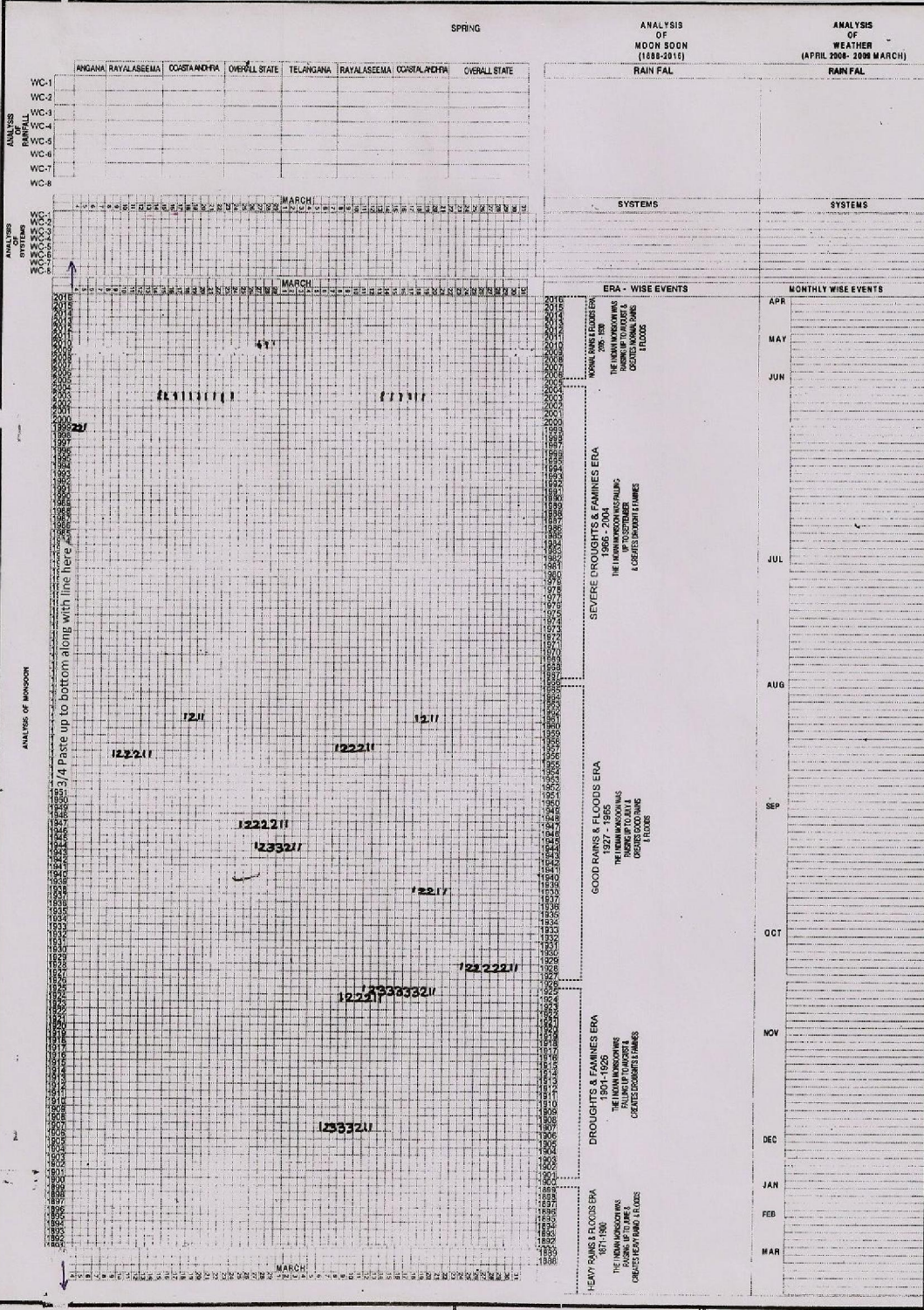


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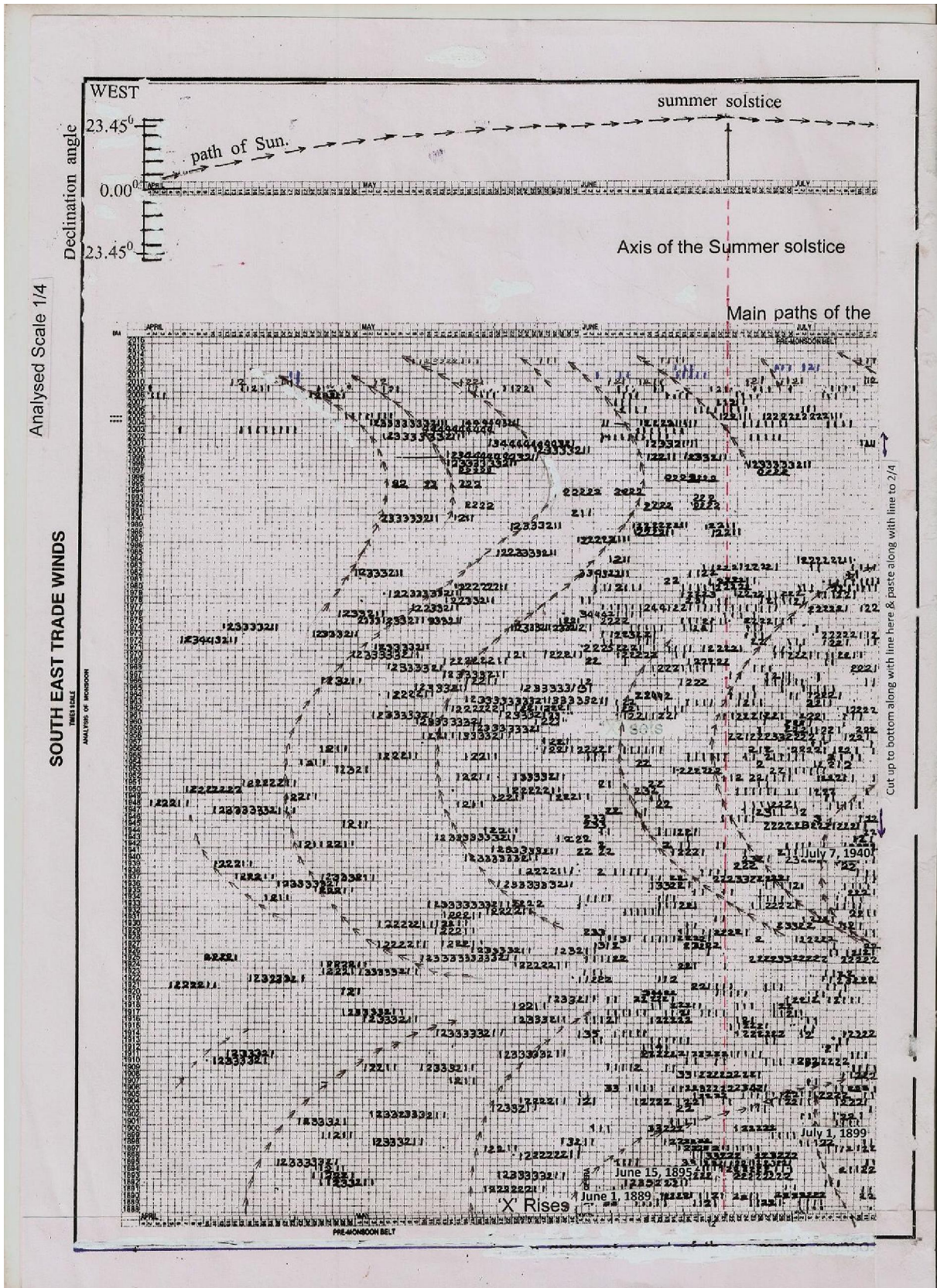


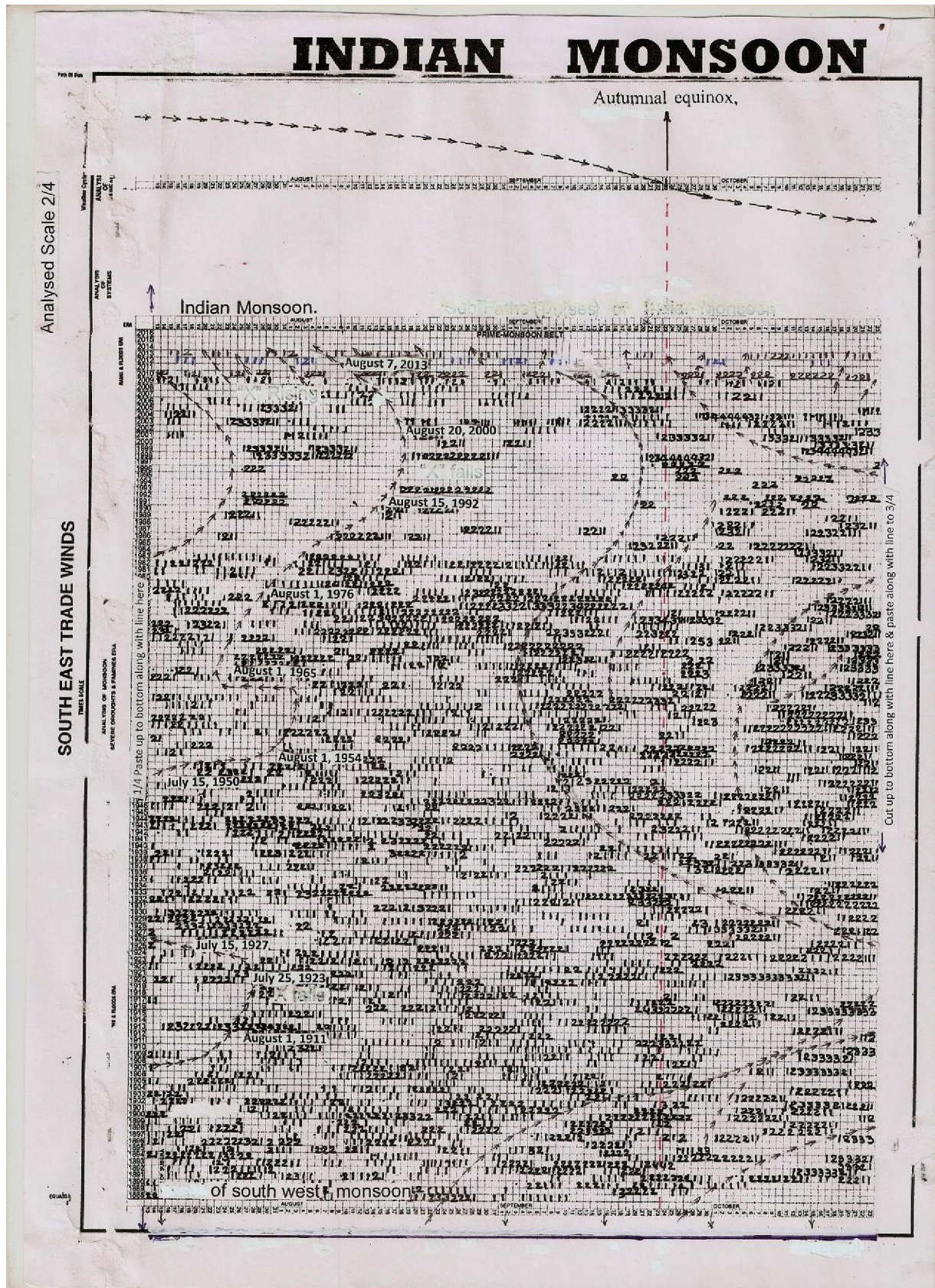
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### SOUTH EAST TRADE WINDS







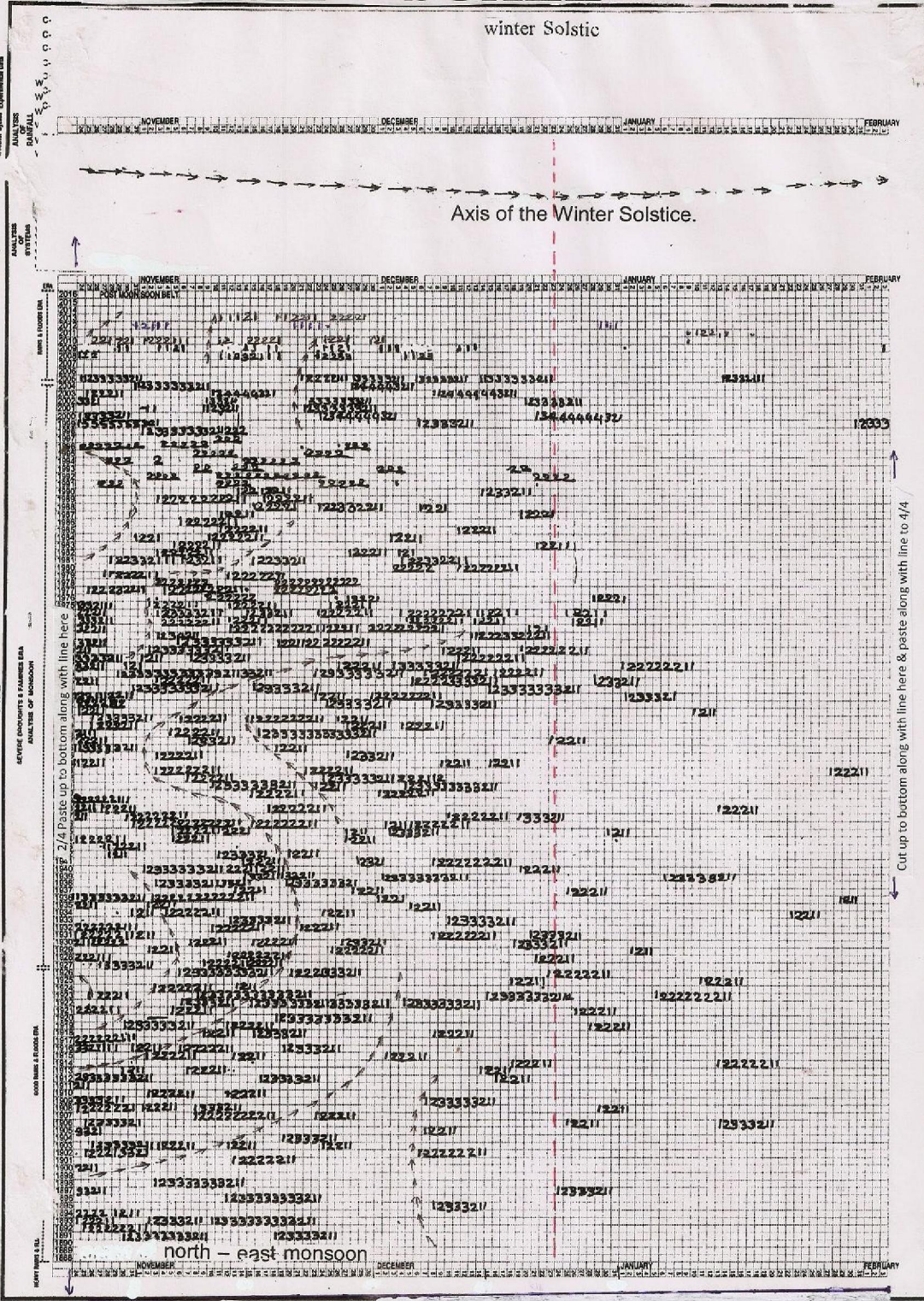


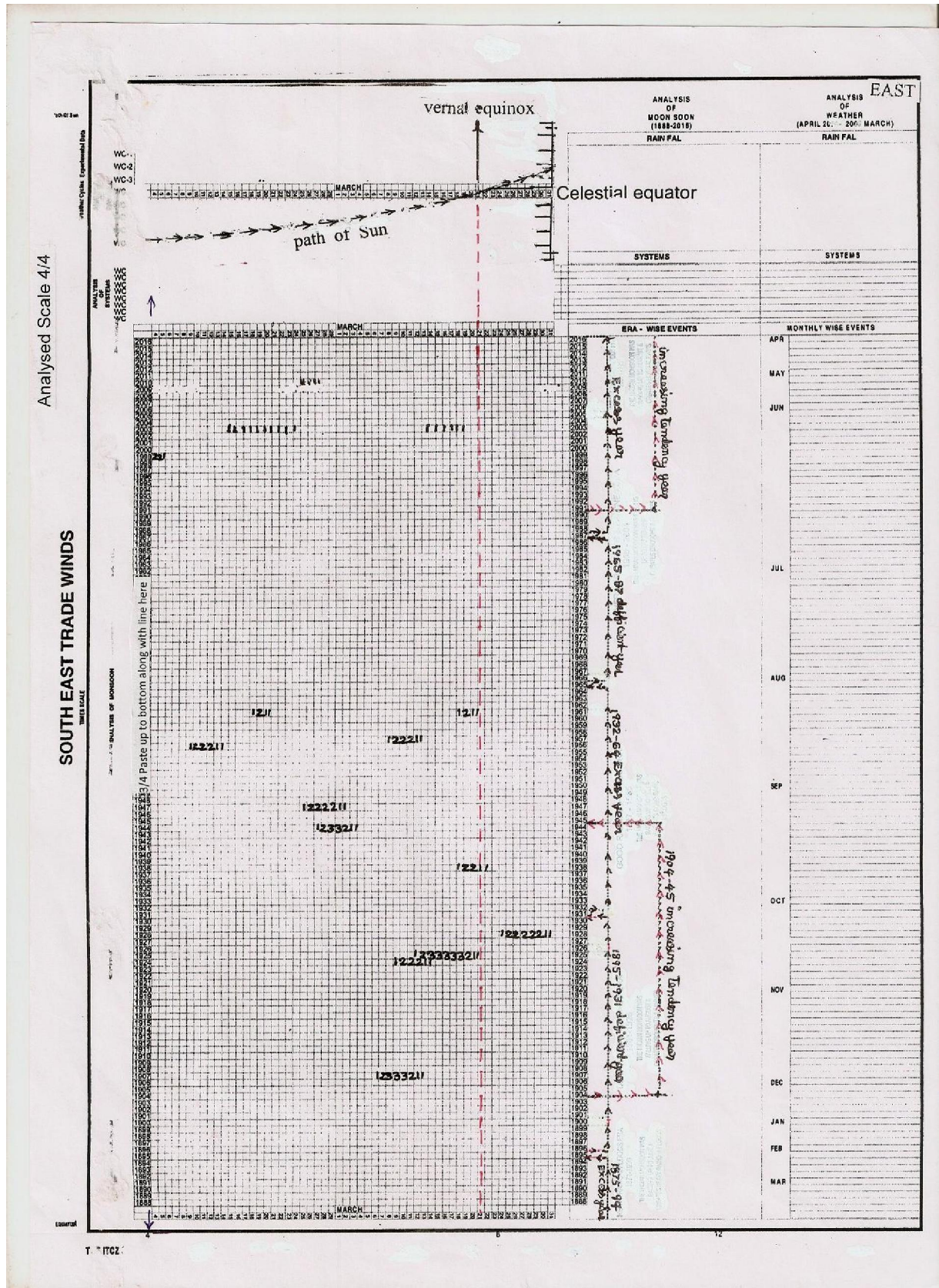
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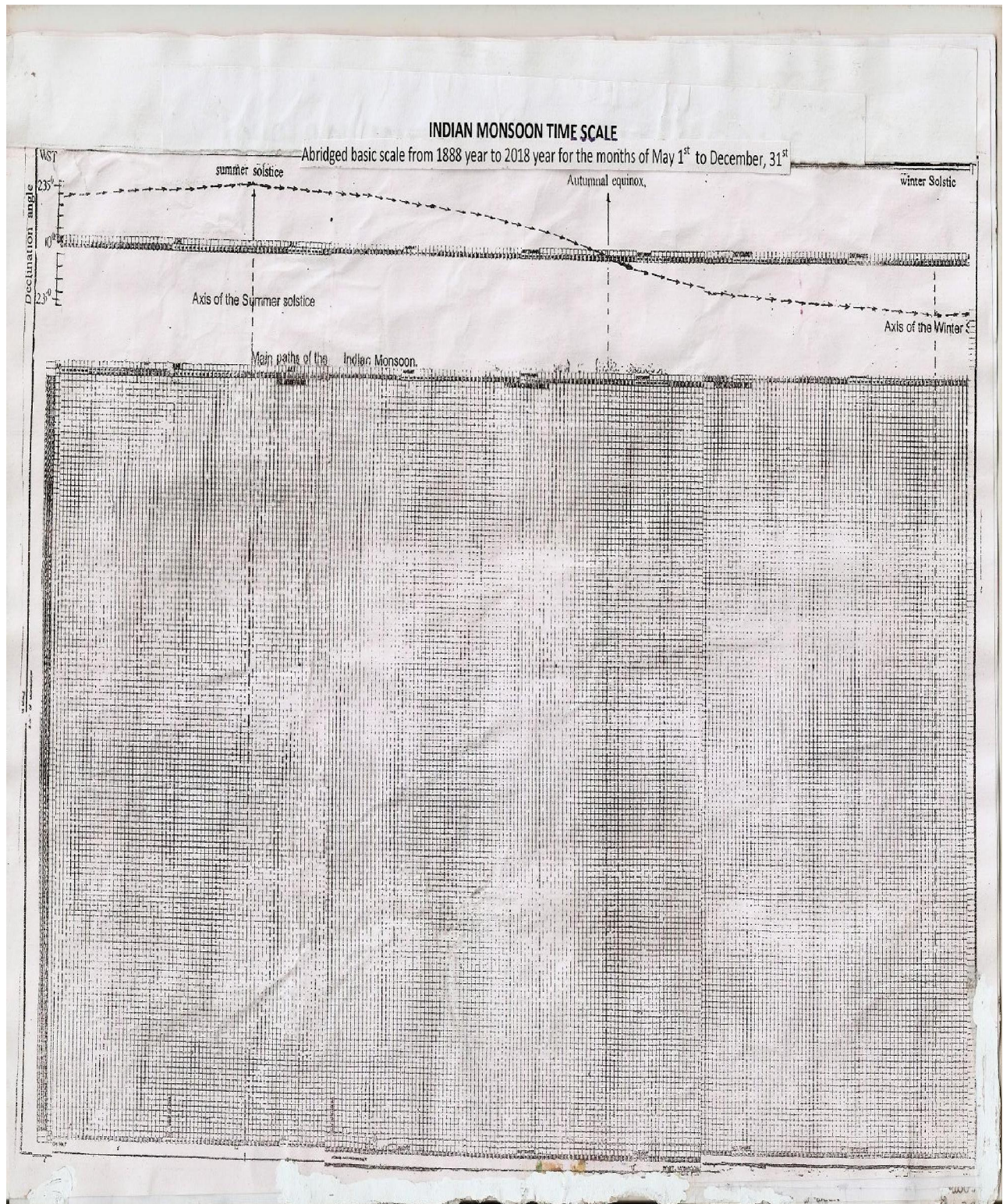
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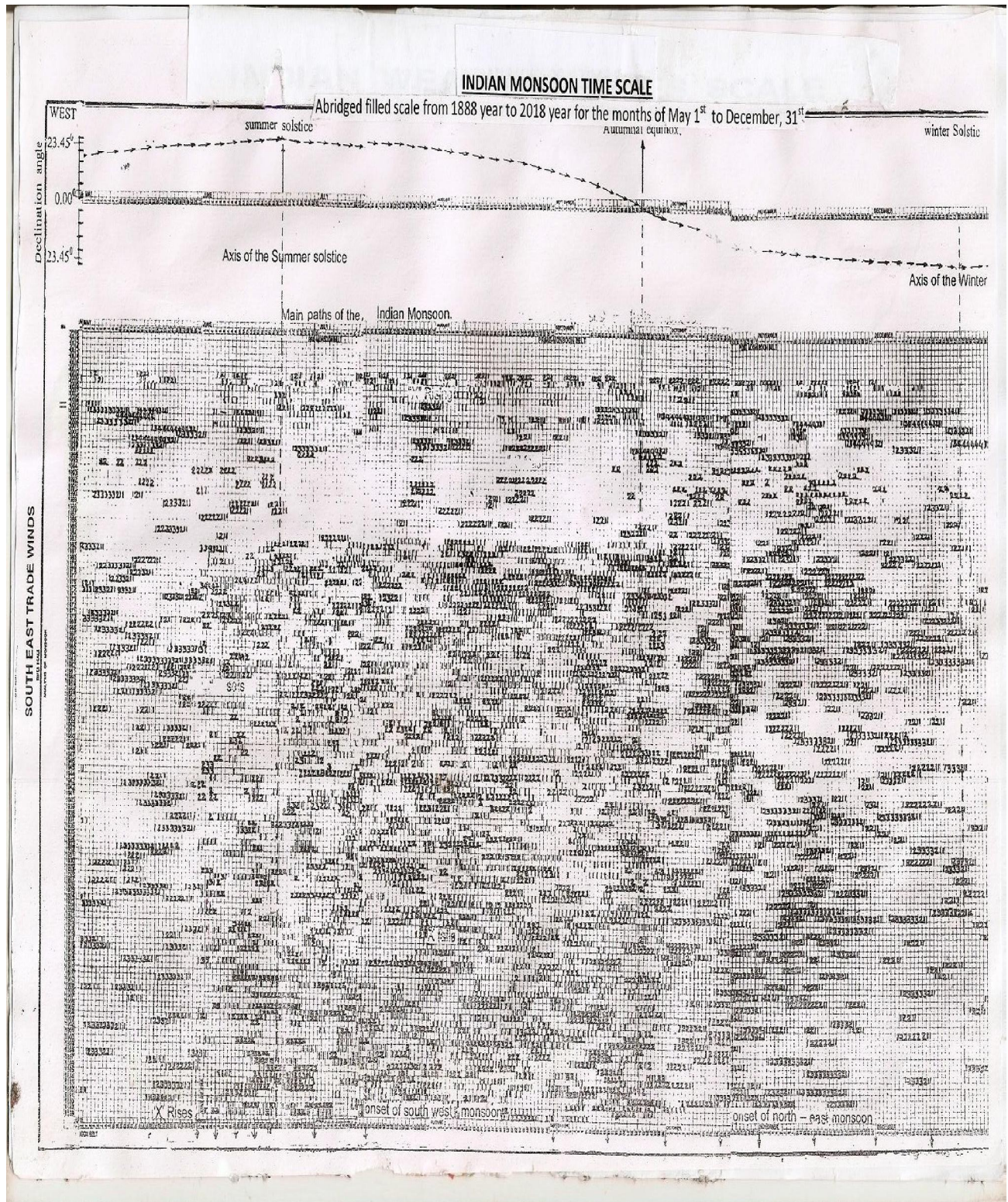
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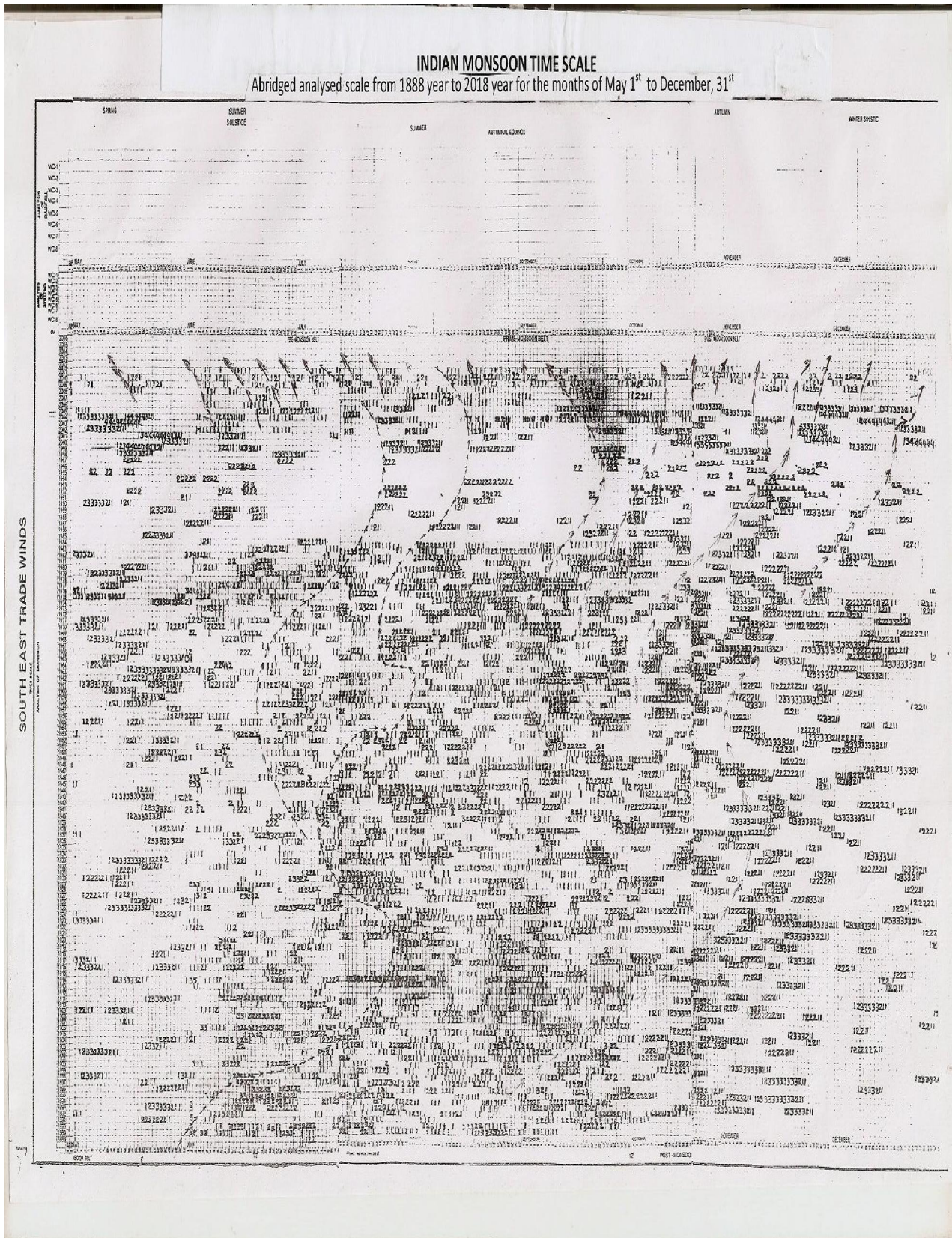
SOUTH EAST TRADE WINDS





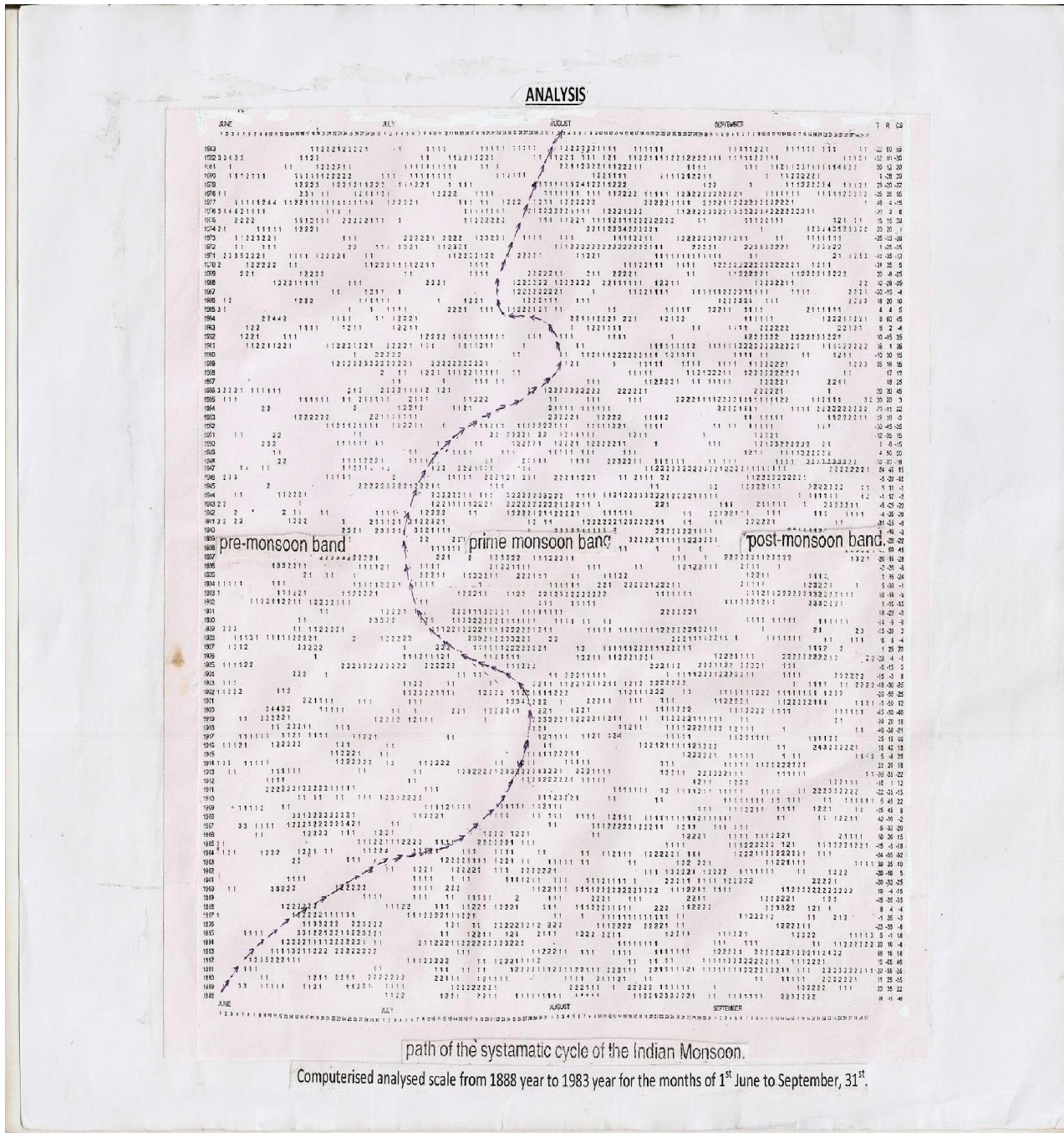












path of the systematic cycle of the Indian Monsoon.

Computerised analysed scale from 1888 year to 1983 year for the months of 1<sup>st</sup> June to September, 31<sup>st</sup>.

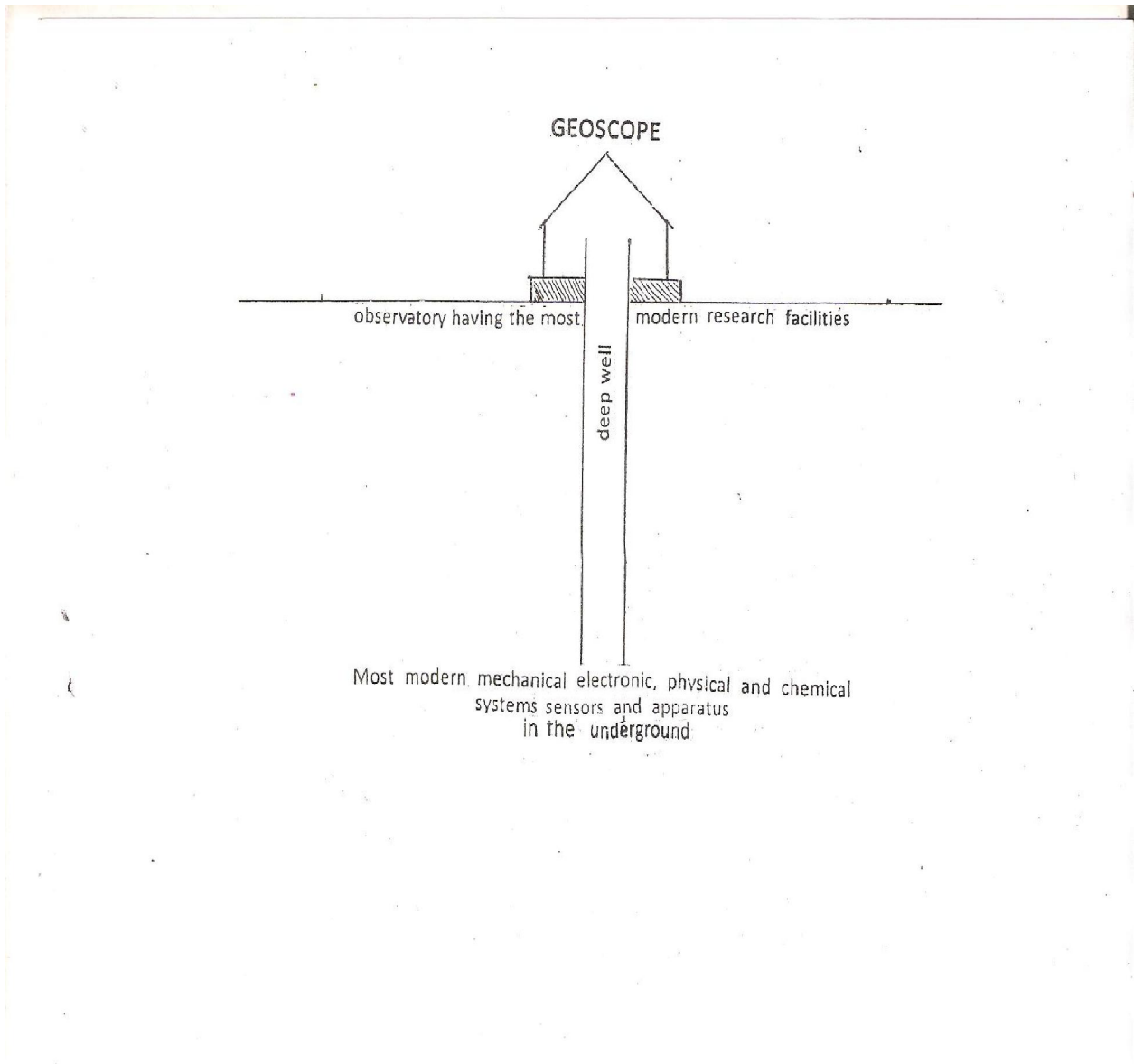
**Appendices: (Indian Weather Time Scale)**

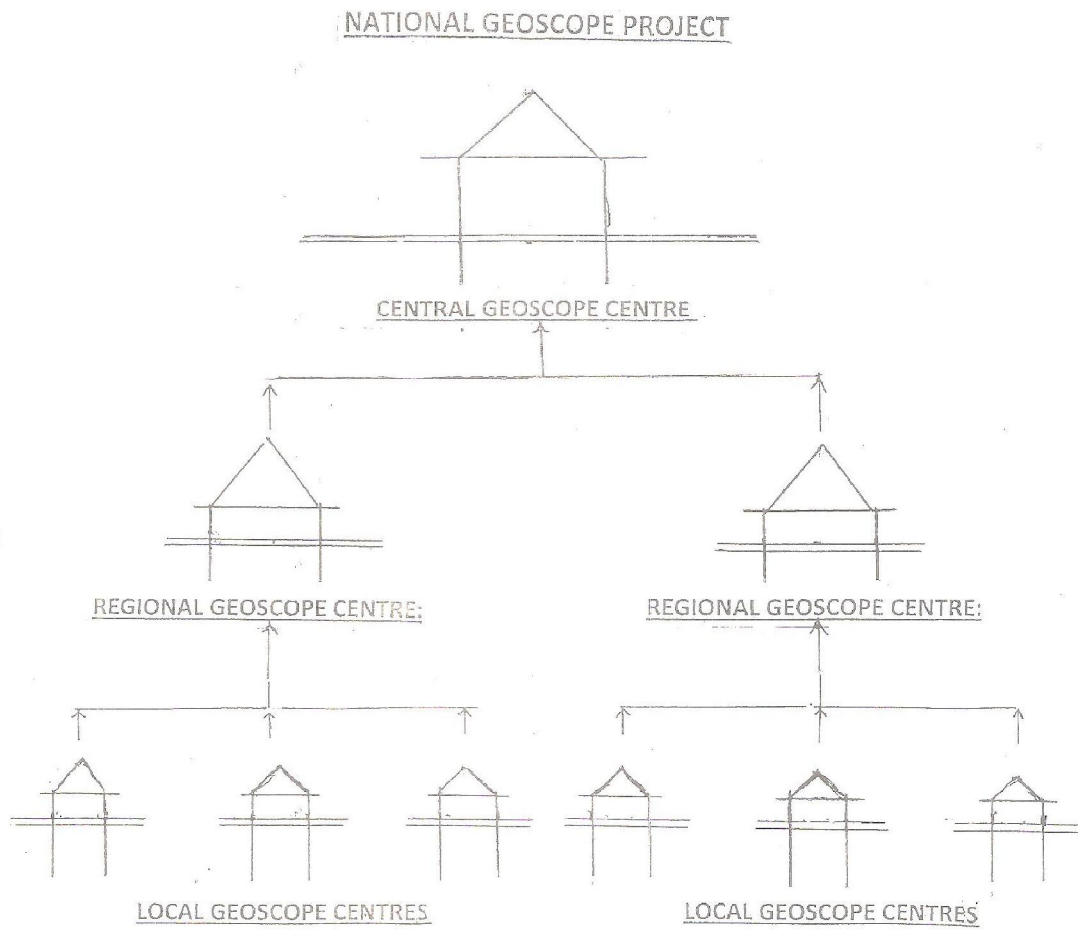
	2020	June			July			August			SEPTEMBER			OVERALL SEASON						REMARKS
		T	R	C	T	R	C	T	R	C	T	R	C	T	R	C				
1	1992	77.18	-9.5	-54.0	-39.2	+5	-15.8	+4.70	-11.2	-10.8	-35.2	-19.1	-26	-1	-12	-6				
	1964	-31.6	+21.3	-15.0	-36.6	+108	-13.4	799.5	-17.8	-11.8	+1503	+139	+95.4	+17	+16	+44				
	1936	+31.7	-9.16	-13.0	-14.1	-35.3	-7.00	-12.5	-65.7	-32.3	+7.82	+21.2	-39.2	-3	-29	-5				
	1908	-32.3	-62.9	+69.9	+5.8	-29.4	-50.9	-9.13	-57.2	-25.2	+10.8	+84.9	+48.4	+38	-9	-2				
	1880	+21.5	+15.2	-99	-24.0	-50.2	-46	-60.7	+2.63	-99.4	+56.2	+19.7	-51	-11	-18	-30				
2	2017																			
	1995	-1.01	-11.5	-36.2	-13.6	+6.5	-20.9	-46.7	-20	-23.0	-71.7	-17.3	-49.3	-33.5	-27.1	-16.3				
	1978	-78.2	-7.7	+26.2	-1.17	+57.5	+6.9	+47.0	-13.1	+31.7	+169.0	+100	+8.0	+50	+37	+55				
	1961	+34.0	+27.8	+70.9	-37.9	+32.9	-24.3	-8.35	-4.9	+13.3	+20.0	-49.6	-6.1	+12	+1	+30				
	1939	-38.0	-20.5	-36.2	-44.6	-34.6	-42.3	-27.5	+13.9	7398	-3.95	+81.7	-13.5	-26	-12	-23				
	1922	-12.3	-50.4	-90.2	-27.6	-516	-31	-36.8	-30.3	-42.0	+22.6	-1.2	-48.3	-18	-29	-15				
	1905	-17.6	+8.61	-29.3	-64.4	-62.2	-72.7	+16.8	+103	-10.5	734.8	-58.1	-6.5	-5	-4	-18				
	1883	+60	+23.3	-25.1	-8.24	-23.5	-55.1	+32.2	+36.4	-10.6	+85.1	-32.1	-56.6	+31	-4	-21				
3	2024																			
	1996	+13.5	+29.4	+13.7	-32.4	-21.4	-17.3	+21.1	+96.6	-9.8	-4.49	+51.2	+19.3	-3.6	+83.1	+46				
	1968	-390	-28.3	-38.7	-28.0	-39.4	-38.4	-82.5	-34.2	-99.4	+1.007	+55.6	-26.6	-20	-18	-39				
	1940	-19.8	+24.3	-2.0	+9.24	-159	-34.0	-89.9	-33.9	-18.4	-26.2	+35.0	-21.5	-5	-5	-3				
	1912	-61.1	-53.3	-74.3	+12.5	-20	-5.6	-11.8	+20.0	+15.3	-12.1	+41.4	70.3	-15	+1	+10				
	1884	-38.8	-53.7	-69.4	+40.7	-43.1	-33.7	-23.1	-25.0	-15.3	+65.6	-30.9	+8.1	+12	-48	-1				
4	1999	-24.2	-25.8	-13.9	-23.5	-30.1	-48.8	-2.28	+7.8	-40.9	+25.8	-24.0	-18.4	-9.1	-20	-15.9				
	1982	+5.15	+59.3	-34.4	+27.6	+0.5	-24.1	-28.6	-66.3	-40.9	+12.4	+17.0	-27.0	+1	-5	+13				
	1965	-51.1	+40.2	-36.6	-44.5	-23.3	-24.2	-27.0	+2.08	-9.7	+80.8	-7.04	72.0	+10	+3	+3				
	1943	+13.5	-54.8	-20.8	-31.4	-30.9	-35.8	-50.5	-9.5	+27.8	+99.1	+1.76	-14.9	-5	-20	-20				
	1926	-69.7	+32.3	+298.6	-10.8	-33.5	+1.8	-19.4	-31.4	-36.5	-18.6	-38.7	-5.3	-25	-2	-1				
	1909	-6.87	-45.4	-32.6	+0.71	-45.4	-22.4	-35.9	+2.06	-4.5	+1.24	+26	+4.3	-12	+44	+7				
	1887	+20.1	+165	+2.4	-23.5	+5.41	-32.6	783.3	+133	+506	+148.0	+16	+31.9	+49	+62	+40				
	1870		+11.5	-64.1		-89.5	-42.4		+50.6	-22.8		-58.1	+25.5	-29	+25	-7				
5	2000	+56.9	+75.4	+47.8	-22.9	-7.8	-34.8	+66.5	+145	764.9	-57.0	-25.1	-57.9	+11	+39	+23				
	1972	70.93	+39.5	-77.8	-42.6	-67.6	-49.6	-58.4	-85.1	+29.9	-37.2	+39.9	+446.6	-1	-24	-34				
	1944	-17.7	+99.9	-0.2	-1.96	+5.6	-17.4	-310	+33.6	-35.4	+74.8	-1.92	-10.9	-39	+15	-2				
	1916	+42.2	-36.5	-2.4	+9.79	+12	+36	-24.3	+17.9	-11.5	+92.0	+54.0	-38.4	+19	+45	+18				
	1888	-18.3	-55.3	-56.2	-4.76	-53.2	-32.5	-43.6	-42.2	-57.4	-49.3	+72	-57.6	-28	-14	-39				
6	2018																			
	2001	714.4	-61.8	-13.4	-6.5	-44.4	-52.0	-53.8	-22.4	-94.3	+28.4	+10.9	+15.1	-25.1	+2.1	-1.2				
	1979	-18.7	-26.9	-23.0	-530	-40.4	-60.9	-50.4	-578	-64.2	+99.3	+37.8	+12.1	-8	-20	-21				
	1962	-48.5	+54.0	-36.1	-24.9	-47.1	+2.5	-27.6	+6.1	-10.5	+103	+4.4	+58.9	+14	-11	+30				
	1945	+17.1	-58.3	-67.7	+14.2	+112	-6.7	-2.23	+17.7	-26.6	+18.9	-15.6	+6.3	+8	+15	-1				
	1923	-80.1	-11.2	-75.5	+3.97	-53.4	-57.5	-54.2	-80.7	-99.4	+73.8	+33.5	-99.3	-17	-29	-13				
	1906	+95.6	+57.6	+180.6	-10.7	+18.0	-34.9	-3.33	+13.8	+10.9	+34.8	+47.4	-45.6	+10	+29	+18				
	1889	-16.6	-25.8	+50.1	+2.55	+43.6	-27.4	+24.0	+28.8	-33.2	+76.8	+17.8	+45.2	+18	-34	+23				
7	2019																			
	2002	-23.0	+16.5	+478	-70.2	-50.1	-69.6	+5.43	-44.2	+64.9	-58.4	-23.4	57.9	-37.1	-31.5	-35.1				
	1985	+19.3	-21.8	-4.6	-15.4	-85.6	-6.8	-44.5	-18.3	-24.8	-39.2	-62.0	-44.1	-23	-20	-4				
	1963	-24.0	-7.7	-36.3	-43.0	+4.5	-22.2	-25.0	+60.6	-7.2	-27.1	-35.4	-4.3	+11	+2	-3				
	1946	+270	-31.6	-22.0	+5.69	-39.7	-9.8	-18.3	-16.6	-30.5	-47.4	+6.4	-16.1	-8	-20	-15				
	1929	-31.6	-20.2	+46.2	-56.6	-44.5	-65.4	-39.9	-69.5	-22.5	+79.3	+58.1	-4.1	-18	-12	-3				
	1907	722	-19.7	+48.8	-42.6	-19.7	-35.1	7	-74.6	-53.6	-18.4	-1.2	-64.4	-8	-28	-19				
	1890	+1.86	+84.1	+2.3	-7.57	-11.6	-39.7	-25.0	+9.21	-50.7	+78.5	+38.5	-30.7	+10	+22	-15				
	1873	-13.5	-47.7	-48.2	-64.5	-53.2	-39.4	-31.5	-24.7	-16.7	+39.8	+25.6	-39.9	-27	-19	-20				

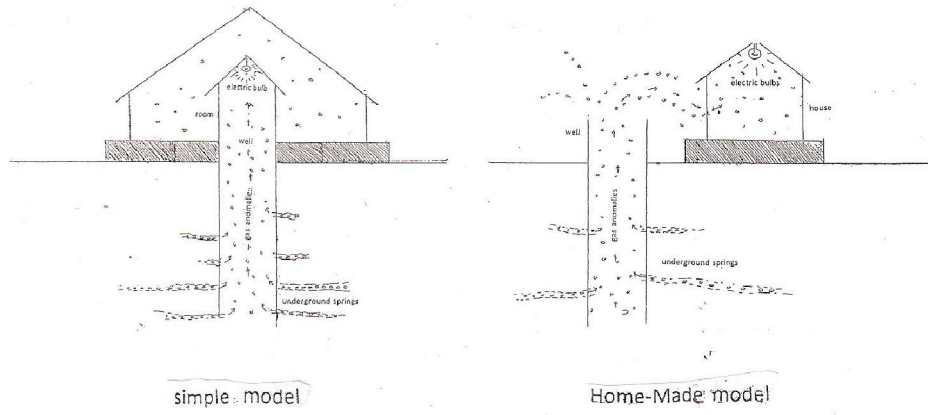


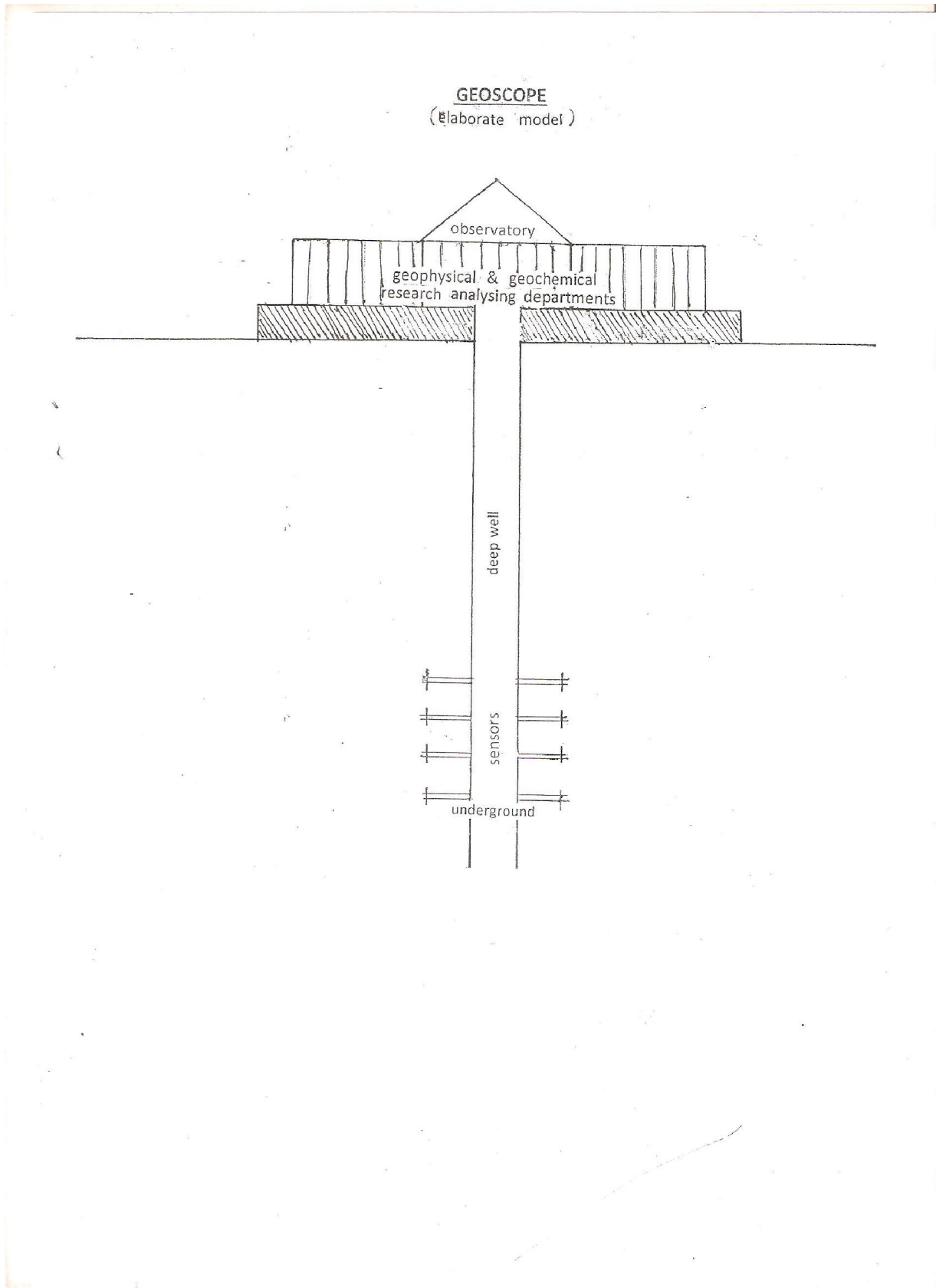
	June			July			August			SEPTEMBER			OVERALL SEASON			REMARKS	
	T	R	C	T	R	C	T	R	C	T	R	C	T	R	C		
18	2013																
	1991	+42.1	+17.7	+64.5	-11.9	-16.1	-30.2	-39.0	-17.8	-93.7	+1.31	-11.6	+32.7	-9.6	+14.7	+22.6	
	1974	-26.6	-5.5	-14.3	-46.9	-12.2	-99.9	-22.6	-20.7	-37.2	+17.6	+10.3	+33.6	-24	+19		
	1957	-16.9	+19.5	+45.3	-49.0	-12.9	-30.4	-1.91	-26.6	+21.3	+12.4	-22.4	-12.1		+8	+24	
	1935	-6.87	+43.4	-45.1	+11.5	+4.16	-30.6	-31.1	+138.8	+346.3	+51.0	-11.3	-21.8	+2	+35	-24	
	1918	-93.3	-45.9	-16.8	-46.1	-56.3	-62.1	-57.0	-38.2	-40.5	+1.00	+18.1	-13.2	-40	-29	-20	
	1901	-21.0	-6.25	-40.7	-11.5	-69.7	-43.8	-16.3	+10.4	-42.2	-44.0	+30.1	-28.9	-19	-29	-24	
	1879	-8.51	+18.8	+3.2	-27.8	+48.1	-116.5	+31.4	-10.4	-99.4	+56.7	+19.7	-51	-9	-6	-16	
19	2014																
	1997	-59.7	+7.9	-65.1	-40.2	-54.2	-37.2	-33.8	-40.7	-48.2	+10.6	+134	+109	-33.2	+14.1	+15	
	1975	-15.4	-4.9	+53.8	+7.44	+48.3	-16.3	-10.9	-14.9	-28.5	+149	+31.6	+7.2	-21	+11	+20	
	1958	-60.6	-19.5	-42.3	-10.1	-16.7	+22.7	-32.0	+105	-15.9	+13.0	-10.4	-12.7		+8	+10	
	1941	+18.0	-47.0	+82.5	-67.5	+57.8	-70.2	-33.4	-48.3	2269	+37.2	+53.6	+1.2	-32	+8	-5	
	1919	+26.6	+6.66	-20.1	-41.1	+57.3	-19.7	-55.7	-80.0	-49.2	+457	+10.7	-26	-32	+2	-15	
	1902	-36.6	-27.6	-47.8	-48.6	-13.6	-35.5	-12.1	-55.7	-99.4	+26.3	-13.2	+15.1	-19	-17	+4	
	1885	-20.7	+19.4	-4.2	-14.1	+11.8	-31.5	-47.8	-41.8	-67.3	+38.5	-25.4	+5.5	-18	-18	-10	
20	2015																
	1998	71.32	-529	-34.5	-21.5	-58.6	29.8	+15.4	+20.2	+5.1	+49.0	+70.6	+56	-50.9	+37	+25.3	
	1981	+35.3	-0.6	-26.9	+1.12	-5.9	+10.0	+7.12	-7.6	-28.9	+105.1	+61.2	+24.6	+26	+10	+25.3	
	1959	-4.76	+76.3	+18.3	-11.5	+9.27	+20.5	-34.2	-165	-30.9	-99.9	+136	-28.8	+40	+10	+12	
	1942	74.76	+42.7	-12.1	-7.78	-66.7	-47.9	+22.4	-13.1	-18.4	-44.5	-24.8	+34.2	-4	-20	-20	
	1925	6.28	-47.2	+1.0	+2.38	-9.2	-10	-4.83	+19.1	+2.4	-0.54	-18.4	+386	-2	-14	+4	
	1903	-25.7	-680	+22.6	+54.0	-46.8	+10.2	+34.8	+30.3	+0.0	+5304	+72	+7.0	+45	+39	+37	
	1886	+60.9	+3.88	+25.1	+26.6	+69.4	-4.2	+40.6	+40.1	+55.3	-39.9	+9.04	-99.3	+24	+21	+38	
21	2016																
	1988	-14.2	-57.0	-57.4	+10.7		+77.7	+33.6	-25.9	+12.7	+19.4	+136	+33.4	+37.4	+65	+50	+41
	1966	-54.9	+67.3	-32.8	715.4		+14.3	+32.3	-7.57	+0.5	+6.1	+61.3	+14.8	-27.2	+3	+20	+9
	1932	+13.2	-629	-13.1	73.97		-24.1	-13.7	+20.1	+22.0	-36.2	+52.6	-20.32	-32.4	+1	-10	-18
	1904	+15	-33.4	-42.5	-4.6		+22.1	-51.4	-69	-83.0	-38.0	+36.9	-39.6	-41.5	-24	-55	-30
	1876	-42.2	-20.8	-33.3	-34.7		73.6	-52.1	-31.8	-42.4	-99.9	-40.6	-71.1	-50.4	-38	-53	-19

**Appendices: (Geoscope)**

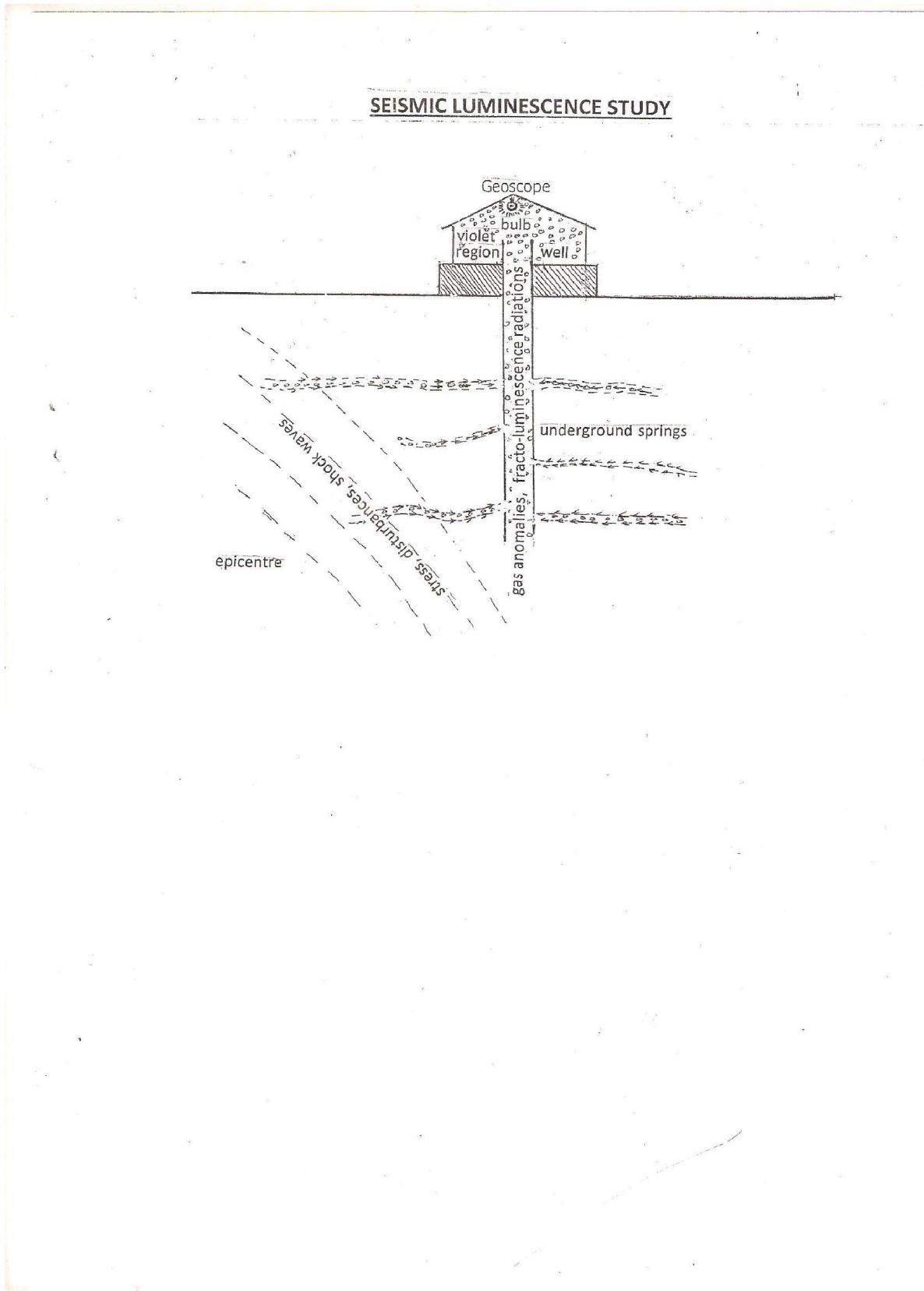




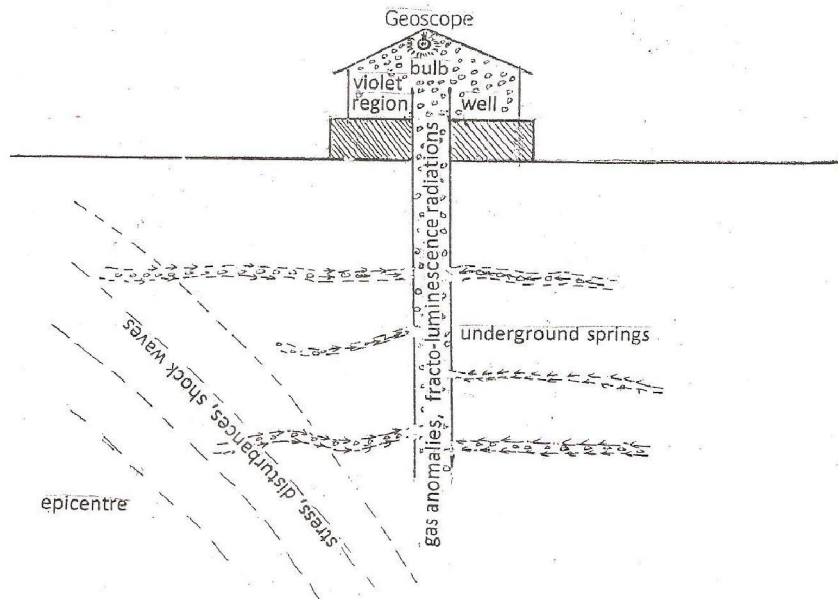


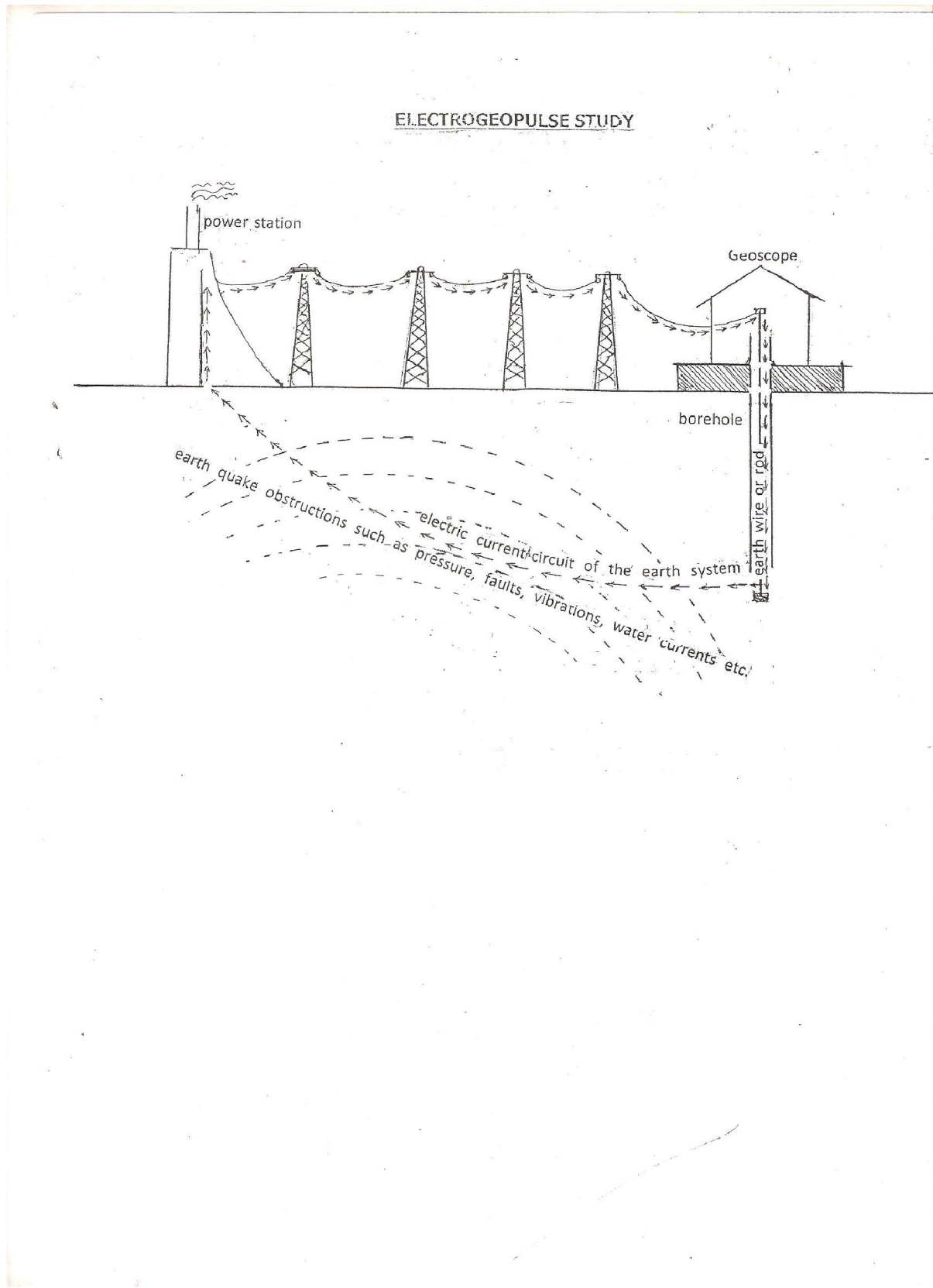






### SEISMIC LUMINESCENCE STUDY







401 NIPMOS/88  
राज्य मन्त्री  
विज्ञान और प्रौद्योगिकी, परमाणु ऊर्जा,  
अन्तरिक्ष, इलेक्ट्रॉनिक्स एवं महासागर विकास  
भारत सरकार, नई दिल्ली  
MINISTER OF STATE  
SCIENCE & TECHNOLOGY, ATOMIC ENERGY,  
SPACE, ELECTRONICS & OCEAN DEVELOPMENT  
GOVERNMENT OF INDIA

9th December, 1988.

Dear Shri Rao,

I have your letter dated 15th November, 1988,  
enclosing a petition from Shri Gangadhara Rao  
Irlapati.

2. I will try to help.

Yours sincerely,

( K.R. NARAYANAN )

**Shri A.J.V.B. Maheswara Rao,**  
Member of Parliament (LS),  
43, North Avenue,  
New Delhi.

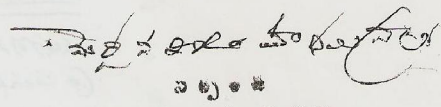
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గ్రామ పంచాయతీ కార్యాలయము  
మెర్లపాలెం, (తూ.గో.జిల్లా)

ధృవపత్రము

తూర్పు గోదావరి జిల్లా ఆత్రేయపురం మండలం లోని మెర్లపాలెం గ్రామ పంచాయతీ లో  
ఎన్.ఎమ్.ఆర్.గా శ్రీ ఇర్లపాటి పుల్లయ్య కుమారుడు గంగాధరరావు నిషిక్త స్వమయి  
డి. 1.1.1982 నుండి 30.6.87 సం.ము వరకు అనగా సుమారు 5 సంవత్సరములు మెర్లపాలెం  
గ్రామ పంచాయతీనందు పనిచేసియున్నాడు. అని ఇందువలనగా ధృవపత్రముగా

మెర్లపాలెం.



ప బ్ల ం తి  
గ్రామ పంచాయతీ, మెర్లపాలెం  
అధ్యక్షులుగా పనిచేయుట

Special Original Jurisdiction  
 Wednesday the Sixth day of September  
 One thousand nine hundred and eighty nine  
 Present  
 The Hon'ble Mr. Justice Lakshmana Rao  
 Writ Petition No.12355 of 1989

Between:  
 Irlapati Gangadhar Rao. .. Petitioner  
 And

1. Union of India, rep. by its Secretary,  
 Ministry of Science & Technology, Anusandhana  
 Bhavan, Rafi Marg, New Delhi-1.
2. Council of Scientific & Industrial Research,  
 rep. by its Director General, Rafi Marg, New Delhi-1.
3. National Geophysical Research Institutes rep.  
 by its Director, Taranaka, Hyderabad. .. Respondents.

Petition under Art.226 of the Constitution of India praying  
 that in the circumstances stated in the affidavit filed herein the  
 High Court will be pleased to issue an appropriate writ or order  
 direction declaring

- i) that the inaction of the respondent authorities in not  
 considering petitioner's representations for carrying on  
 research and scientific investigations as arbitrary,  
 unreasonable and illegal;
- ii) a direction may be issued to the respondents 2 & 3  
 to consider the petitioner's representations so as to  
 enable him to carry out scientific investigations in  
 respondent 3 institution, or any such other appro-  
 priate direction may be passed;
- iii) Costs be awarded to the petitioner;

For the Petitioner : Mr. K. Ramakrishna Reddi, Advocate  
 For the respondents : Mr. S. Venkateswara Rao, S.G. for Central Govt.

The Court made the following: ORDER

Heard the learned counsel for the petitioner as well as the  
 learned Standing counsel for the Central Govt. appearing on behalf  
 of the respondents.

The relief sought for in this writ petition is a direction  
 to the respondents to consider the respondent's representations  
 submitted by the petitioner to provide facilities to enable  
 to carry out scientific investigations in National Geophysical  
 Research Institute, Hyderabad and pass appropriate orders thereon.

Having regard to the facts and circumstances of the case,  
 it is directed that the respondents shall consider the representa-  
 tion dated 3-6-89 submitted by the petitioner and pass appropriate order  
 thereon as early as possible preferably within three months from  
 date of receipt of a copy of this order.

The writ petition is accordingly disposed of. No costs.

S/- S.R. Choudary  
 Asst. Registrar  
 Asst. Registrar

//true copy//

To

1. The Secretary, Union of India, Ministry of Science & Technology,  
 Anusandhana Bhavan, Rafi Marg, NEW DELHI-1.
2. The Director General, Council of Scientific & Industrial Research,  
 Rafi Marg, NEW DELHI-1.
3. The Director, National Geophysical Research Institute, Taranaka, H.
4. spare copy
5. 1 CD copy