The future of Kadana Dam

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Abstract: What will be the future water availability in Kadana Dam in the coming years and decades? Here is a critical point to bring to the notice of Indian governments, scientists, irrigation engineers, officers, farmers, and people to be aware of one thing. That is to say, India will be hit by a series of heavy rain floods in the coming years. According to the Indian Monsoon Time Scale, India is currently rapidly entering the throes of an era of major heavy rains and floods. As a result, India will be plagued by heavy rains and floods until around 2070. These conditions are now rising and peaked around 2045 and then began to subside by 2070. However, this does not mean that floods occur in all years. There are more flood years and fewer drought years. This study suggests that the Kadana Dam is likely to fill up waters in the coming years, for a period of 50 years, up to approximately 2075. Floods may occur in some years, causing loss of life and property in the catchment and drainage areas. Therefore, the situation in the catchment and drainage areas of the Kadana Dam should be closely monitored, and strategies should be prepared accordingly. This paper is composed of updated additional information and analysis with new data compared with current developments.
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Introduction:

The Kadana Dam is a major multi-purpose dam on the Mahi River in the Mahisagar district of Gujarat, India, built between 1979 and 1989 to harness the river's water. It serves as a crucial component of the Mahi Hydroelectric Project, supporting a pumped-storage hydroelectric power station with an installed capacity of 240 MW and 27 radial spillway gates. The dam, a combination of earthen and masonry construction, contributes to irrigation, power generation, and overall water resource management in the region.

Key Aspects of Kadana Dam:

Location: Situated on the Mahi River in the Mahisagar district of Gujarat, India.

Construction: An earthen and masonry dam, built between 1979 and 1989.

Purpose: A multi-purpose project designed to utilize the Mahi River's water for irrigation and hydroelectric power.

Power Generation: The dam is a major part of the Kadana Hydroelectric Project and houses a pumped-storage power station.

Capacity: The hydroelectric power station has an installed capacity of 240 MW.

Infrastructure: The dam features 27 radial spillway gates to manage water flow.

According to the Indian Monsoon Time Scale, India is currently rapidly entering the throes of an era of major heavy rains and floods, and rivers, lakes, reservoirs, barrages, dams, etc. may be full of water in the coming years. Low-lying areas are flooded, causing loss of life and property. This is likely to cause reservoirs, dams, and barrages in India to fill up. There is also a possibility of flooding in some coming years. Therefore, there is a possibility of an abundant water supply for drinking, agriculture and hydropower etc. for the next 50 years. So the Indian government should wake up and develop the Indian Monsoon Time Scale by computerizing and monitoring the heavy rains and floods situation in the Kadana Dam catchment and drainage areas. And make advanced strategies accordingly to formulate plans to utilize the waters efficiently and also save the people from the coming heavy rains and floods era.

Indian Monsoon Time Scale:

The Indian Monsoon Time Scale is a chronological sequence of events arranged in between time and climate with the help of a scale for studying past's, present and future movements of the Indian monsoon and its relationship with rainfall and other weather problems and natural calamities. From where to wherever to take the time and weather data to analyze, the researcher can decide on his discretion according to available weather data. The Indian Monsoon Time Scale can be modeled as One-line method(full-length Scale, Assembly-line

method (parts and paste scale), Concise method(monsoon season) and Computerized method.

Method&design:

Design**:** For this, I took a period of 365 horizontal days from April 1st to next year March 31st and the data of monsoonal low pressure systems, depressions and storms of 178 years from 1880 to 2058 that were formed over the Indian subcontinent region taken as the climate, on the whole comprising of a large time and climate took and framed into a square graphic scale. I designed this Indian Monsoon Time Scale in three ways i.e Basic scale, Filled scale, Analyzed scale as described below.

Basic Scale: The first one is basic scale, it explains the structure of the scale.

Filled Scale: The second one is filled by data scale, it explains how to fill and manage the scale.

Analyzed Scale: And the third one is filled and analyzed by data, it explains monsoon patterns of the scale.

Method: There are four methods in formation and process of the Indian Monsoon Time Scale. The first one is in the single form and next one is the assembly-line form, third one is the Concise form and final one is the Computerization form.

One-line method:

A one-line method Scale in the design of Indian Monsoon Time Scales is very useful for observation of monsoons without confusion. This can be designed on tables or walls or on paper according to one's convenience.

> I prepared the Indian Monsoon Time Scale having 365 horizontal days from April 1st to next year March 31st (or January 1st to December 31st or March 21st to next year March 20th or according to the chronology of India's time and climate) of 178 years from 1880 to 2058 or a required period, comprising of a large time and climate was taken and framed in a single and full length type square graphic scale. It can be formed on a paper, board, wall or table.

Prepare this Indian Monsoon Time Scale having 365 horizontal days from April 1st to next year March 31st (or January 1st to December 31st or March 21st to next year March 20th or according to the chronology and seasons of a country's Time and Climate) of 178 years from 1880 to 2058 comprising a large Time and Climate should be taken and framed in a one line and full-length type square graphic scale on a Paper or a Wall or a Table.

Assembly-line method:

The single and full length square graphic scale is to be long. It is not convenient to take it away, to preserve it, to take it to the demonstration or to publish it in the journals. So that it is divided into four parts easy to carry and keep and suitable for publication. I designed it into 4 parts and then pasted it into one scale.

The first part is from 1st April to July 12th.

The second part is from 13 July to October 23rd.

The third part is from 24th October to February 3rd.

And the fourth part is from the 4th February to March 31st ending.

These separate scales are pasted into one scale as described below below.

Cut along the edges of dates on the right side of the first part and paste it along the edges of the date of 13th July on the left side of the second part.

Cut along the edges of dates on the right side of the second part and paste it along the edges of the date of 24th October on the left side of the third part.

Cut along the edges of dates on the right side of the third part and paste it along the edges of the date of 4th February on the left side of the fourth part .

When pasted in this manner, we get a long full length Indian Monsoon Time Scale.

Concised (Monsoon Season) method:

Indian Monsoon Time Scale is too long with 365 days, 12 months, 5 seasons along with many other features. So, Indian Monsoon Time Scale (Monsoon Season) is designed for the crucial monsoon season for June, July, August and September from 1888 to till date. Carefully observe.

From 1895 to 1935, the line of path of the Indian monsoon was traveled over the months of August and September in the shape of concave direction. In this 4 month season, the line traveled just over the two months only. At that time, statistics show that less rains and droughts have occurred. Only some seasons hàd good rains.

From 1935 to 1985, the line of path of the Indian Monsoon Time Scale was traveled over all the four months of June, July. August and September in the shape of a convex direction. At that time, statistics indicate that good rains, sometimes heavy rains and floods have occurred.

From 1935 to 2010, the line of path of the Indian monsoon was traveled over the months of August and September in the shape of concave direction. In this 4 month season, the line traveled just over the two months only. At that time, statistics show that less rains and droughts have occurred. Only some seasons hàd good rains.

Now carefully observe the India Monsoon Time Scale, from 2010 the path of the Indian monsoon began to travel upwards in the direction of upper ascending convex similar as the period 1985 to 1935. As a result there are chances of good rains

until 2060 in the upcoming seasons full months of June, July, August and September. By 2040, these will be full in the four month monsoon season. Heavy rains and floods are likely to occur in some seasons in some areas. No rains and droughts are less frequent.

Computerization method:

Besides these above three manual scales, I have prepared a computer Indian Monsoon Time Scale generated by the computer system from the year 1888 to 1983 for the period of 1st June to September 30th. It is partially computerization. Later the computerization of the Indian Monsoon Time Scale was stopped due to the lack of money. Later in 2018, I tried computerization again but stopped due to declining health.

If we are able to create a computer model scale which would be the most obvious.

Materials&method: The monsoon pulses in the form of low pressure systems over the Indian region have been taken as the data to the construction of this scale. For this, a lot of enormous data of low pressure systems, depressions and cyclones that formed over the Indian region were taken as the climate from many resources just like Mooley DA,Shukla J(1987); characteristics of the westward-moving summer monsoon low pressure systems over the Indian region and their relationship with the monsoon rainfall. Centre for Ocean-land Atmosphere interactions, University of Maryland, college park, MD., and information provided by the organizations such as the India Meteorological Department, Indian Institute of Tropical Meteorology, Indian Institute of Technology and information taken many other resources just like Wikipedia, The world's 7 Tropical Cyclone seasons around the world etc.

Management:

The monsoon pulses in the form of low pressure systems over the Indian region are taken and entered 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. How the Indian monsoons have been travelling since 1880 onwards are recorded on the Indian Monsoon Time Scale. I took the numerical/statistical method to analyze the variations in data. If we have been managing the scale in this manner continuously, we can study the past, present and future movements of the monsoon of India. Researchers have to decide what kind of data to take and how to analyze the data.

Complete investigations of the Indian Monsoon Time Scale "I.e" Results and Analysis and Study and discussion are described in the following paragraphs on a sample-by-sample basis in detail.

Results&analysis:

Let us know in detail below the results and analysis, study and discussion of the Indian Monsoon Time Scale. Investigations of the above Monsoon Time Scale should be carried out on the basis of the results and analysis and study and discussion of this Indian Monsoon Time Scale.

I did many comprehensive analyzes on the results of research and studies of monsoons and found out many mysteries and its relationship with the movement of the axis of the Earth around the Sun in the universe & its influences on the Earth's atmosphere. Let's study these results and analyze them briefly and in detail.

When examining the Indian Monsoon Scales, I noticed that in several passages path-ways of monsoon pulses there have been some cut-edge paths and splits passing through travelling zigzag cycles systematically in parallel and stacked next to each other in ascending and descending order clearly seen. If the thin arrows along the passages identified on the Indian Monsoon Time Scale are drawn from 1880 to the current year, then the monsoon paths appear. Many other methods can analyze the Indian Monsoon Time Scale. In my research , I have noticed that depending on the incidence of heavy rains & floods in some years and droughts & famines in other years, they happened according to the travel vel of the monsoon path. The path of monsoons when travelling over four months from June to September, good rainfall and floods occurred. And the path when travelling over last months, i.e. July or August or September, low rainfall and droughts occurred. In particular, there are two main passages. The first one is the main path or passage of the South West monsoon of the Indian monsoon and the second one is the path or passage of the North-East monsoon. The first one is on the left side over the months of June, July, August, September, and the second path on the right side over the months of October, November, December are visible in the Indian Monsoon Time Scale.

Keep track of the Indian Monsoon Time Scale carefully. When we look at the Indian Monsoon Time Scale, several paths appear. Two of these are important. The right sided second one can be called as the main path of the monsoon and the left side first one can be called as the pre-path of the main passage of the Indian monsoon. The main path appears clear and its pre-path appears unclear. Due to unavailability of data, it is not known how the pre-path of the Indian monsoon traveled before 1888. But according to the research and studies it is guessed that -

Brief analysis:

Keep track of the Indian Monsoon Time Scale carefully. Briefly describe the travel patterns of the monsoon-by 1888, the monsoons expanded over 3 months of June, July, August until June 1 and brought heavy rains and floods in most of the country in more years. During the 1896-1935's, falling increased over June, July until July 25th and brought low rainfall and droughts in most of the country in more years. During 1935-1990's, it was rising again and expanded over the June, July, August, September until 10th June caused h5.St6.Siains and floods in most of the country in many years. During 1990-2015s, it was again falling over June July until 25th July. From 2015, it is now rising, expanding upwards and estimated traveling over the months of June, July, August by 2040 to its peak and will be expanding all over the 4 months June, July, August and September and causing heavy rains and floods most of the country in more years around 2060.

Detailed analysis:

Due to unavailability of data, it is not known how the main path of the Indian monsoon traveled before 1888. But according to the studies, it is known that between 1865-1897, it traveled in the shape of a convex direction and caused good rainfall in many years. During this 4-month period of (June, July, August, September) of Indian monsoon season, the line of path of the monsoon was traveled over all these four months. As a result, there were heavy rains and floods most years.

From 1898 to 1920, the line of path of the Indian monsoon was traveled over the months of August and September in the shape of concave direction. In this 4 month monsoon season, the line traveled just over two months only. As a result, it rained only two months instead of four months monsoon season and caused low rainfall in most of the country in many years,

From 1920 to 1965, the line of path of the Indian monsoon was traveled over the months of July, August, and September in the shape of convex direction. In this 4 month monsoon season, the line traveled over three months. As a result, it rained only three months instead of the four month monsoon season and resulted in good rainfall in most of the country for more years.

From 1965 to 2015, the passage of the Indian monsoon was traveled over the months of August to mid-August in the shape of a deep sloping direction In this 4 month monsoon season, the line traveled just over two months for a short period only. As a result, it rained only two months instead of the four month monsoon season and caused low rainfall and droughts in most of the country in many years.

From 2015, the line of path of the Indian monsoon seems likely to rise over the months of July and to June in future in the shape of upper ascending direction and will be causing heavy rains & floods in most of the country in coming years until around 2060. This is an assessment based on the study of situations from 1888.

Deep analysis:

As of 1888, the monsoons traveled at their peak, the pre-path monsoons on June 1 and the main-path of monsoons on July 9 and caused good rainfall in many years.

From about 1891, they traveled steeply downwards, reaching a low peak by 1918.

Between about 1910 and 1927, the Monsoons advanced in the concave direction during the months of August and September at their trough and caused low rainfall and droughts in most of the country in many years.

From about 1918, the monsoon traveled steeply upwards, reaching its peak by 1960.

Between about 1935 and 1985, the monsoons advanced in a convex direction during the months of June and July and caused good rainfall in many years.

From about 1960, the pre-path monsoons travel obliquely downstream, through July 25 and the main-path monsoon through August 18.

Around 1985-2010 during the low state, pre-path of monsoons in July and main-path of monsoons in August moved forward in concave direction and caused low rainfall and droughts in most of the country in many years.

From 2010, the monsoon is expected to move steeply upwards and reach a peak in intensity by 2040.

Around 2040-2065, the monsoons are expected to move forward in a convex direction, causing heavy rains and floods in most of the country in more years.

Concised (Monsoon Season) Scale Analysis:

Now carefully observe the various stages of the concised scale.

From 1895 to 1935, the line of path of the Indian monsoon was traveled over the months of August and September in the shape of concave direction. In this 4 month season, the line traveled just over the two months only. At that time, statistics show that less rains and droughts have occurred. Only some seasons hàd good rains.

From 1935 to 1985, the line of path of the Indian Monsoon Time Scale was traveled over all the four months of June, July. August and September in the shape of a convex direction. At that time, statistics indicate that good rains, sometimes heavy rains and floods have occurred.

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Now carefully observe the India Monsoon Time Scale, from 2010 the path of the Indian monsoon began to travel upwards in the direction of upper ascending convex similar as the period 1985 to 1935. As a result there are chances of good rains until 2060 in the upcoming seasons full months of June, July, August and September. By 2040, these will be full in the four month monsoon season. Heavy rains and floods are likely to occur in some seasons in some areas. No rains and droughts are less frequent.

Study and Discussion:

The results obtained as above are studied and discussed as follows.

The Indian Monsoon Time Scale reveals many other secrets of the monsoon & its relationship with rainfall & other weather problems and natural calamities. Some bands, clusters and paths of low pressure systems clearly seen in the Indian Monsoon Time Scale, it have been some cut-edge paths passing through its systematic zigzag cycles in ascending and ascending orders which causes heavy rains & floods in some years and droughts & famines in another years according to their travel. And also we can find out many more secrets of the Indian monsoon such as droughts, famines, cyclones, heavy rains, floods, onset & withdrawal of monsoon etc. by keen study of the Indian Monsoon Time Scale. The passages clearly seen in the Indian Monsoon Time Scale are sources of monsoon pulses. The tracking date of main path & other various paths of monsoon etc., of the Indian Monsoon denotes the onset of the monsoon, monsoon pulses or low pressure systems. These observations can mean that pulses of the monsoon are repeatedly determined by the number of repeats.

Furthermore, the main passage of the line of monsoon travel from June to September and September to June are also signs to impending weather conditions of a country. For example, during 1865-1895's, the main path-way of the Indian monsoon was rising over June, July, August. During the 1896-1920's, it was falling over August, September. During 1920-1965's, it was rising again over July, August, September. During the 1965-2020s, it was falling over September. From 2020, it is now rising upwards and estimated traveling over the months of June, July, August by 2066.

(There may be a difference of 5 to 10 or more years between those periods. This is because currently it can not be estimated with certainty that the respective period will start or end in the ruling period.)

The tracking date of the main path & other various paths of the Indian Monsoon denote the onset of the monsoon, monsoon pulses or low pressure systems, storms and its consequent secondary hazards and storms etc.. 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 the monsoon etc. by keen study of the Indian Monsoon Time Scale.

For example, the date of tracking ridge of path is the sign to the impending cyclone and its secondary consequent hazard floods, storm surges etc.,

Another example, the thin and thick markers on the upper border line of the Indian Monsoon Time Scale are the signs to the impending heavy rains & floods and droughts & floods. The thick marking of clusters of low pressure systems on the Indian Monsoon Time Scale is the sign to the impending heavy rains and floods and the thin marking of clusters of low pressure systems on the Indian monsoon time scale is the sign to the impending droughts and famines.

These are just some studies of the Indian monsoon. There are many more secrets in the Indian monsoon. Indian scientists should get rid of them. We can find out many more secrets of weather conditions by keen study of the Indian Monsoon Time Scale.

1:Historical evidences:

Many historical texts in the scriptures such as the Bible and the Quran's also reinforce the Indian Monsoon Time Scale. For example, the text in the Genesis, chapter 41 similar to that on the Global Monsoon Time Scales it was reported that in the past centuries, the monsoons have been going up and down (Rise and Fall)in ordinary English" there comes seven years of great heavy rains and floods throughout the land of Egypt. And there shall arise after them seven years droughts and famines ". These scriptures reinforce the basic principle of Global Monsoon Time Scales.

2:The IITs Study and Discussion of 100 years the Indian Monsoon:

Deficient rainfall led to the collapse of the Mansabdari system, started by Mughal emperor Akbar, in the late 17th century. Similarly, drought interspersed with violent monsoon rains sounded the death knell for the Khmer empire of south-east Asia in the 15th century. A recent study by researchers at Indian Institute of Technology, Kharagpur(IIT-KGP) has revealed that abrupt changes in the Indian monsoon strengthen during last 900 years and their

linkages to socio-economic conditions in the Indian subcontinent by nil K. Gupta, Professor at the geology and geophysics, Department of IIT-KGP, highlights that decline of Indian dynasties was linked to weak monsoon and reduced food production.

Rise and fall: Several dynasties, such as the Sena in Bengal, Solanki in Gujarat in the mid-13 th century and Paramara and Yadav in the early to mid-14th century-all of which flourished during the dry phases of Indian summer monsoon suggesting role of the climate in the sociopolitical crisis, the study revealed.

The paper published in international journal PALEO 3 highlights three phases in the 900 years stretch-Medieval climate from 950 CE to 1350 CE, Little Ice Age from 1350 CE to 1800 CE and Current Warm Period and phases from 1800 CE until today. The paper highlights strong monsoon during the Medieval Climate Anomaly and Current Warm Period and phases of weak monsoon. There can be no doubting the profound impact of the abrupt shifts of rainfall on human history-a fact we need to constantly remind ourselves of in this day and age of irretrievable climate change. Abrupt shifts in the ISM precipitation has similarly impacted history in India, Prof. Gupta said.

For the study on long-term spatio-temporal variability of the ISM, a group of researchers, which also included experts from Wadia Institute of Himalayan Geology, looked at paleoclimate records using oxygen isotope proxy record from speleothems(a structure formed in a cave by deposition of minerals from water) at the Wah Shikar cave Meghalaya.

We took samples from every half millimeter or sometimes even one-third of a mm, and we dated using uranium-thorium time series. Such time sampling of less time intervals means we were covering data at two-three years' intervals, while most research collects data at 20–30 years' intervals. We even captured the drought events of last few centuries, Prof. Gupta said. The results showed abrupt shifts in the ISM, he added.

For more recent phases of human history the study suggests that from the beginning of the 19th century, the changes in the ISM became more abrupt with a rise in atmospheric temperature that coincided with the dawn of the Industrial Revolution.

An increase in the frequency of abrupt shifts in the ISM during the last centuries, coincidental with a rise in atmospheric temperature, suggests occurrence of more climatic surprises in future consequent to future rise in the global temperature and subsequently more precipitation in the form of rain at higher altitudes." the paper said.

Prof. Gupta said that they were doing similar work extending their paleoclimate study to 6000 years ago to see the impact of climatic change on Indus Valley civilization and on population migrations.

3:Studies of the IITM, Pune:

Studies of the Indian Institute of Tropical Meteorology, Pune that strengthened the Indian Monsoon Time Scale. Studies of long time series of the Index of All India area-weighted mean summer monsoon rainfall anomalies during the period 1871-2017 based on IITM Homogeneous Indian Monthly Rainfall Data Set have revealed the several interesting aspects of the inter-annual and decade-scale variations in the monsoon that strengthened the Global Monsoon Time Scales.

FLOOD YEARS: During the period of 1871-2015, there were 19 major flood years:1874, 1878, 1892, 1893, 1894, 1910, 1916, 1917, 1933, 1942, 1947, 1956, 1959, 1961, 1970, 1975, 1983, 1988, 1994.

DROUGHT YEARS: And in the same period of 1871-2015, there were 26 major drought years: 1873, 1877, 1899, 1901, 1904, 1905, 1911, 1918, 1920, 1941, 1951, 1965, 1966, 1968, 1972, 1974, 1979, 1982, 1985, 1986, 1987, 2002, 2004, 2009, 2014, 2015.

Depending on the data mentioned above, it is interesting to note that there have been alternating periods extending to 3–4 decades with less and more frequent weak monsoons over India.

For example, the 44-year period 1921-64 witnessed just three drought years and good rainfall in many years. This is the reason that when looking at the Indian Monsoon Time Scale you may note that during 1920-1965's, the passage of the Indian monsoon had been rising over July, August, September in the shape of concave direction and resulting in good rainfall in more years.

During the other periods like that of 1965-87 which had as many as 10 drought years out of 23, This is the reason that when looking at the Indian Monsoon Time Scale you may note that during 1965-2004's the path of the Indian monsoon had been falling over the September in the shape of convex direction and causing low rainfall and droughts in many years.

4:Studies by the Massachusetts Institute of Technology, Cambridge, National Research Foundation, Singapore, Singapore-MIT Alliance for Research and Technology (SMART):

A study of the Massachusetts Institute of Technology, Cambridge supported and in part by the National Science Foundation, the National Research Foundation of Singapore, and the Singapore-MIT Alliance for Research and Technology (SMART) finds that the Indian monsoon, which bring rainfall to the country each year between June and September, have strengthened since 2002. Between

1950 and 2002, they found that north central India experienced a decrease in daily rainfall during the monsoon season. To their surprise, they discovered that since 2002, precipitation in the region has revived, increasing daily rainfall. That heightened monsoon activity has reversed a 50-year drying period during which the monsoon season brought relatively little rain to northern and central India. Since 2002, the researchers have found, this drying trend has given way to a much wetter pattern, with stronger monsoons supplying much-needed rain, along with powerful, damaging floods, to the populous north central region of India.

A shift in Indian Monsoon Time Scale may explain this increase in monsoon. Consistent with the studies of the above research institutions, this is the reason that when looking at the Indian Monsoon Time Scale you may note that between 1950-2002, the path of the Indian monsoon had been falling over the July and August in the shape of convex direction and decreasing rainfall and since 2002, the Indian monsoon has been rising over July, August, September in the shape of concave direction and precipitation in the region has revived, increasing daily rainfall.

5.Studies on the Milankovitch cycles:

Another great source of evidence for the determination of the Indian Monsoon Time Scale is the Milankovitch scales. Earth has seasons because its axis of rotation is tilted at an angle of 23.5 degrees relative to our orbital plane-the plane of Earth's orbit around the sun. The collective effects of changes in the Earth's rotation around its axis and revolution around the Sun such as axial tilt etc. may influence climatic patterns on the earth. When examining the Indian Monsoon Time Scale closely from 1880 to the present, there are many ups and downs in the monsoon cycles. This is the reason for the ups and downs with the monsoons is that the climate changes on the earth forms along the Earth's spin on its axial tilts around the sun. When the Indian Monsoon Time Scale is being examined it is known that there are many unknown mysteries in the Earth's spin on its axial tilts around the Sun. Astrophysicists discover the mysteries of the Earth's spin on its axial tilts around the Sun based on the Indian Monsoon Time Scale. Global researches around the world such as Milankovitch cycles etc. strengthened that the Earth's spin on its axis around the Sun is the root cause of the variations in the monsoons.

Another great source of evidence for the determination of the Indian Monsoon Time Scale is the Milankovitch scales. Milankovitch cycles are a series of periodic changes in the Earth's orbit around the Sun that affect the amount of solar radiation the Earth receives, which in turn influences climate change: These cycles are named after Serbian scientist Milutin Milankovitch, who hypothesized that they are a major driver of long-term climate change. Milankovitch cycles are believed to have caused Earth to swing between ice ages and warmer periods for millions of years. Scientists can model these cycles and compare their calculations to evidence found in geological sediments.

Milankovitch cycles are a series of periodic changes in the Earth's orbit around the Sun that impact the amount of solar radiation the Earth receives, which in turn influences climate change:

Eccentricity: The shape of the Earth's orbit around the Sun. The Earth's orbit is elliptical, but its shape varies over time. When the orbit is more elliptical, the Earth moves closer and further from the Sun, which impacts the climate.

Obliquity: The angle of the Earth's axis in relation to its orbital plane. The tilt of the Earth's axis changes over time, moving from 22.1° to 24.5° and back again over about 41,000 years. When the tilt increases, summers are warmer and winters are colder.

Precession: The direction Earth's axis of rotation points. The Earth's axis completes a full cycle of precession every about 26,000 years.

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According to the Milankovitch cycle, the angle of the Earth's axial tilt (obliquity) regarding the orbital plane (the obliquity of the ecliptic) varies between 22.1° and 24.5°, over a cycle of about 41,000 years. The current tilt is 23.44°, roughly halfway between its extreme values. Milankovitch cycles are a series of periodic changes in the Earth's orbit around the Sun that affect the amount of solar radiation the Earth receives, which in turn influences climate change.

These cyclical orbital movements, which became known as the Milankovitch cycles, cause variations of up to 25 percent in the amount of incoming insolation at Earth's mid-latitudes (the areas of our planet located between about 30 and 60 degrees north and south of the equator). Milankovitch cycles are a series of orbital changes that impact the Earth's climate over thousands to hundreds of thousands of years. These cycles are caused by variations in three factors:

Milankovitch cycles impact the Earth's climate by: Changing the distribution of solar radiation. The amount of solar radiation that reaches the Earth's surface varies seasonally and annually based on latitude. Influencing the average surface

temperature. This can cause exchanges of volatiles between the atmosphere and surface reservoirs. Triggering the beginning and end of glaciation periods. Milankovitch cycles are thought to be a major driver of the Earth's long-term climate. For example, when the Earth's axis is tilted more, the seasons become more extreme, with warmer summers and colder winters. The Earth's axis is currently tilted at 23.5 degrees.

The Earth revolves around the Sun and the Sun revolves around the Milky Way. If you think closely, the reflections of the movements of the Earth and Sun "I.e" the Earth rotates (spins) on its axis once every 24 hours and revolves around (orbits) the Sun once every 365 days. The sun rotates (spins) on its axis once every ~27 days and revolves around (orbits) the center of the Milky Way once every 225–250 million years and other mysteries are clearly reflected on the Indian Monsoon Time Scale. Think carefully. Milankovitch cycles are directly related to current climate changes, they are a natural process that has shaped Earth's climate from an 85 year cycle to millions of years.

According to my research and studies, this tilt does not remain constant at 23.44°. It oscillates up and down and slowly moves to 24.5°. These oscillations of up and down will be about 85 years, according to the Indian Monsoon Time Scale. That is about a 60 years upwards journey and about 25 years downward in total oscillating once every about 85 years, the latter taking place a little further. In this every oscillation, when it's oscillating towards 22.1° that is descending order low rainfall (droughts and famines) occurs and when it's oscillating towards 24.5°, heavy rainfall (heavy and floods) occurs. Oscillating in this way, it slowly moves forward. All this can be clearly observed in the Indian Monsoon Time Scale. If this is true, then we are close to reaching 24.5°, So are there going to be more climate changes in the coming future.

6.Studies on the recent patterns of the heavy rains and floods worldwide:

According to the Indian Monsoon Time Scale, it is known that there will be major global climate changes in the coming years "i.e" heavy rains, floods, and storms etc. will occur until about 2075. As mentioned above, heavy rains and floods are going to occur all over the world in the upcoming seasons. Confirming this, heavy rains and floods will occur all over the world. Examples are mentioned below.

Persian Gulf: Flash flooding in April 2024 affected Oman, the United Arab Emirates, Yemen, Bahrain, Qatar, and Saudi Arabia. Heavy rain caused nearly a year's worth of rain in some states in a single day. At least 46 people died, including 20 in Oman and 18 in Iran.

East Africa: Flooding and cyclones in 2024 affected Kenya, Tanzania, Uganda, Ethiopia, Burundi, and Somalia. As of May 17, 2025, at least 473 people died, and an estimated 1.6 million people were impacted.

West and Central Africa: As of August 15, 2025, Chad, the Democratic Republic of the Congo, and Nigeria were the most affected countries.

Brazil: Torrential rains in Rio Grande do Sul caused flooding that displaced 160,000 people and killed 100.

Southern Germany: Heavy rain caused deadly flooding in Bavaria and Baden-Württemberg, forcing thousands of people to evacuate.

Afghanistan: Flash floods in northern Afghanistan killed hundreds of people and destroyed homes and livestock.

Oman: Heavy rainfall caused flash flooding in parts of Oman, killing at least 12 people.

Uruguay: Thousands of people evacuated as a river reached record high levels in the Florida Department.

Argentina: Flood chaos in Buenos Aires after 130 mm of rain in 24 hours.

Indonesia: Deadly floods and landslides in West Sumatra after 300 mm of rain in 6 hours.

Central Europe: A weather map from Geosphere Austria shows a large band of rain across Central Europe, with Austria bracing for heavy rains and a cold front.

Poland: Four southern provinces in Poland are at the highest risk of flooding.

Nigeria: Floods in northeastern Nigeria have affected one million people, with the collapse of a major dam causing the state's worst flooding in decades.

Vietnam: Typhoon Yagi made landfall in northern Vietnam, causing landslides and floods, and killing more than a dozen people.

India: Monsoon floods have killed dozens in India, with thousands in relief camps.

Other countries: Floods and landslides affected Kyrgyzstan in April 2024, and floods affected Rwanda, Somalia, and Tanzania in April 2024. Flash floods affected Iraq in March 2024, and floods affected Kazakhstan in March 2024.

7.Studies on the Deserts pouring rains and turning green:

Rains and green plants in deserts in recent times are another example for supporting the Global Monsoon Time Scales. Recently, a rare deluge left parts of the Sahara desert flooded, with dramatic visuals showing palm trees and sand dunes inundated. These were the first floods in the Sahara in half a century.

According to the Indian Monsoon Time Scale, it is known that there will be major global climate changes in the coming years "i.e" heavy rains and floods will occur until about 2075. As mentioned above, heavy rains and floods are going to occur all over the world in the upcoming seasons. As a result, multiple deserts around the world are turning green, including the Sahara Desert and the Thar Desert:

The Sahara Desert in West Africa has been turning green as a result of the climate/monsoon cycle traveling towards its peak state. In September 2024, NASA captured images of the Sahara's transformation into a verdant landscape with increased water levels and vegetation growth. The images showed that some areas of the Sahara received five times their usual monthly rainfall, and one of the desert's normally dry lakes filled with water.

A study suggests that the Thar Desert may turn green as a result of the climate/monsoon cycle traveling towards its peak state by the end of the century. The study's authors analyzed weather data from South Asia over the past 50 years and predicted future changes under various greenhouse gas scenarios. The study's results indicate that the Indian monsoon is expanding westward, which could lead to significant agricultural and socio-economic changes in the region.

The arid landscape of the Saudi desert is turning green as a result of the climate/monsoon cycle traveling towards its peak state.

Scotland's deserts are turning green as a result of the climate/monsoon cycle traveling towards its peak state

China's deserts are turning green as a result of the climate/monsoon cycle traveling towards its peak state.

The UAE deserts, including parts of Dubai, have become greener due to increased rainfall in recent years. This has led to more vegetation, changing some areas from desert to shrubland."

In this way, the reason why the deserts become green is that the monsoon line is traveling to a higher position. In such situations, it is very important to study the travel patterns of these climates and monsoons. So scientists can set up the Indian Monsoon Time Scale and sense the upcoming climate changes in advance.

8:Studies on the presence of Indian monsoon advancing towards from the Bay of Bengal to the Arabian sea and from the September to June during journey of Indian monsoon season in recent decades:

Keep track of the Indian Monsoon Time Scale carefully. From 2000, it is going to travel upwards in the shape of a convex direction. According to it, it is known that there will be major global climate changes in the coming years "i.e" heavy rains, floods, and storms etc. will occur until about 2075. Ensuring this journey of monsoons in the Global Monsoon Time Scales it is known in the studies of the researchers is that the sea surface temperatures (SSTs) in the Arabian Sea that lead to cyclogenesis have increased by 1.2 -- 1.4 °C in recent decades. These studies provide great evidence for the determination of monsoon time scales. Sea surface temperatures (SSTs) leading to cyclogenesis in the Arabian Sea are 1.2 -- 1.4 °C higher in recent decades, compared to SSTs four decades ago. The intensity of cyclones has increased in the Arabian Sea by 20–40%. During the past four decades, the maximum intensity of cyclones has increased by 40% (from 100 km/hr to 140 km/hr), in the Arabian Sea, during the pre-monsoon season (April–May). The Arabian Sea during the post-monsoon season (October–December) has witnessed a 20% increase in the intensity (from 100 km/hr to 120 km/hr). As a result, the total energy used up by a tropical cyclone during its lifetime (known as the accumulated cyclone energy) has also gone up. The changes in the Bay of Bengal are not significantly large. Lifetime maximum intensity of cyclones (knots) and accumulated cyclone energy (knots2) during the period 1980–1999 and 2000–2019 in the Arabian Sea and the Bay of Bengal basin during the pre-monsoon (April–May) and post-monsoon (October–December) seasons. The data shows that the intensity of cyclones in the Arabian Sea increased by 20% (post-monsoon) to 40% (pre-monsoon). The north Indian Ocean is rapidly warming and has contributed to more than a quarter of the total increase in the ocean heat content globally in the past two decades. In a global warming scenario, an increase in ocean temperatures at a faster rate in the Arabian Sea as compared to the Bay of Bengal is one of the major thermodynamic parameters due to which models are projecting an increase in the frequency of the cyclones in the Arabian Sea. All the studies, described above, determine Indian Monsoon Time Scale.

Future:

As discussed above, the convex period of pre-path which traveled between 1918-1981 will be traveled between 2010-2060 and the convex period of the main-path which traveled between 1926-1981 will be traveled between 2020-2075. As a result, it is known that there will be major global climate changes and natural calamities in the coming years "i.e" heavy rains, floods will occur until about 2075. So, According to the Indian Monsoon Time Scale, India is currently rapidly entering the throes of an era of major heavy rains and floods, and rivers, lakes,

reservoirs, barrages, dams, etc. may be full of water in the coming years

Scientific theorem:

The cause is unknown. But the year-to-year changes of movement of the earth rotates on its axis, inclined at 23 1⁄2 degrees from vertical to its path and revolves around the sun in accordance with the Milankovitch cycles, does play a significant role in the formation of the monsoons, including the Indian monsoon and stimulates the climate changes and natural calamities on the Earth.

The intertropical 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 subcontinent due to direct and converging rays of the summer sun on the Indian Sub-Continent and develops into the Indian monsoon trough and maintain Indian monsoon circulation.

Conclusion:

I proposed and designed the Indian Monsoon Time Scale for unraveling the mysteries of the Indian monsoon; studying the dynamics and mechanism of the Indian monsoon, and exercising the benefits to the people in the Indian monsoon region. We can make many more modifications, thus bringing many more developments in the Indian Monsoon Time Scale, and it should be computerized for accurate predictions.

Here is an important point to be grasped by the world's scientists. That is, according to the researches and studies on the Indian Monsoon Time Scale, it is come to known that there will be climate changes and natural calamities in the coming years "i.e" heavy rains, floods and other catastrophic conditions will occur until about the 2075 and then, there will be droughts, famines and other catastrophic conditions until about the 2150. Through the establishment of the Indian Monsoon Time Scale, we can know the future consequences of climate changes and natural calamities in the Indian subcontinent region. Therefore, prevention and mitigation plans can be made accordingly. So, I call on the world scientists to design and establish the Indian Monsoon Time Scale, by following the Basics of Monsoon Time Scales, based on the Indian Monsoon Time Scale which is successfully proved out in practice as outlined above. There we can predict what is going to happen in the coming years.

Acknowledgements:

In this research, many consultations were made with professors and scientists for their valuable suggestions and advice. The India Meteorological Department, Indian Institute of Tropical Meteorology and Indian Institute of Science etc. organizations provided a lot of valuable information and data to this research and in making these Basics of Monsoon Time Scales including the Indian Monsoon Time Scale. There was also some information taken from Wikipedia. I am grateful and sincere thanks to all of them.

Indian Monsoon Time Scale : A great invention that India has neglected

I am an unfortunate Indian scientist with a vision to save India from monsoon climate changes and natural calamities. Our country did not support and provide research opportunities to me. I built a small lab with available resources and conducted research and studies on the Indian monsoon. After much research and studies, I invented the Indian Monsoon Time Scale in 1991. After the introduction of the Indian Monsoon Time Scale, it is known that India is entering an era of great heavy rains and floods. In 1991, I submitted a research report to the Hon'ble Prime Minister of India through Sri G.M.C. Balayogi, Member of Parliament (Lok Sabha) on the importance and necessity of establishing the Indian Monsoon Time Scale for studying the Indian monsoon. Sri G.M.C. Balayogi recommended the Indian Monsoon Time Scale to the India Meteorological Department for implementation in the services of the people. In 1994, The Cabinet Secretariat of India also recommended this Indian Monsoon Time Scale proposal to the Ministry of Science & Technology, Govt of India for further research and implementation. In 1996, many consultations were made with the Parliament House, President of India and other VVIPS for further research and development of the Indian Monsoon Time Scale. In 2005, consultations were made with the India Meteorological Department about the Indian Monsoon Time Scale for further research and development in the services of the people. In 2009, The Secretary, Minister of Science and Technology also recommended the Indian Monsoon Time Scale to the Indian Institute of Tropical Meteorology for further research and development. In 2008, Dr.T.Subbarami Reddy, Hon'ble Union Minister of State for India made a recommendation to the India Meteorological Department for further research and development of the Indian Monsoon Time Scale in the services of welfare of the people. In 2008, I sent a representation to the Government of India , India Meteorological Department about the correspondence for further research and development of the Indian Monsoon Time Scale. In 2009, I made a representation to the Government of India , India Meteorological Department about the correspondence for further research and development of the Indian Monsoon Time Scales. In 2009, the Secretary, Minister of Science and Technology sent a letter to the Indian Institute of

Tropical Meteorology for further research and development of the Indian Monsoon Time Scale. In 2010, a representation was sent to the India Meteorological Department about the correspondence for further research and development of the Indian Monsoon Time Scale. Despite much pleading, the Indian Monsoon Time Scale was neglected and pushed into the dark, unable to be recognized.

Appeal to the world scientists:

I am an unfortunate Indian scientist that society threw away. I approached government authorities and research organizations, explained my ideas and doctrines, and begged for research opportunities. But, I did not have support and opportunities, moreover pushed me out the gate. And some people listened to my ideas and doctrines and ridiculed them, while others attacked me. I built a small lab in my house and conducted research and studies on the Earth's sciences and introduced numerous unique ideas and doctrines and started basic level identifying, formulating and preparing research notes with scientific methodology through some clues and ideas that it is possible to succeed, and tried to fulfill them. I am a victim of racism and untouchability, discrimination and negligence, conspiracies and prosecutions. At last, from 1980, again I rebuilt a small laboratory in my house on my own without the support of the governments and research organizations and conducted research and studies with available resources and mathematical instruments, drawings, designs, home-made apparatus, scrap reference books on the Earth's sciences and tried to realize and fulfill the ideas and doctrines I introduced.

Among them, Biometeorological-based weather forecasting systems(1965-70) for studying the inextricable relationship between living things and natural disasters; Doctrines of my A New Model of Cosmology (1970-80) for breaking the mysteries of the cosmos; Basics of Geoscope systems(1980-87) for studying and predicting the earthquakes, Basics of Monsoon Time Scales (1987-91) for studying and predicting climate changes and natural calamities; Astrometeorological-based Nature Cyclic Pattern Tables (1991-2000) for studying the inextricable relationships between the planetary movements in the space and climate changes on the earth; Designs of Geoscope systems(2000-2015) for all world seismic zones; Designs of Global Monsoon Time Scales (2015-still) for all world countries including all global, regional and local monsoon systems etc. were successfully completed and proved out in practice. While, Creating artificial rains and floods based on the Earth's geomagnetic field and pouring rains in the rain-fed irrigation areas; Creating artificial cyclones based on the Earth's geomagnetic field pouring heavy rains and floods over the reservoirs and dams; Creating artificial underground waters based on the Earth's geomagnetic field and raise groundwaters in rain-fed and drought areas and many more futuristic ideas and doctrines that can be accomplished through some scientific methodologies through some clues and ideas that it is possible to succeed were not fulfilled due to lack of support and opportunities.

Besides these, I have done various other services and play active role in many fields science popularization programs, modern scientific ideas of hierarchical and general taking an active part in issues such as literacy programs, remedial programs, rationalize programs etc. that concerned the greater good of the community associated with many organizations like Peoples Action For Rural Awakening, Ravulapalem etc. .

However, I sacrificed a lot of effort along with much research and studies and made many inventions and discoveries. I didn't get respect and recognition. Political recommendations and official support, cash and caste, region and religion may play a key role in giving support and opportunities, awards and rewards, respect and recognition to depressed communities. But I have none of them. My ideas and doctrines were far-off current science and subjected to the wrath of racists, casteists and fanatics as well as fellow scientists and resulted in being ignored and darkened. Moreover, the ideas and doctrines I introduced angered the scientists, superstitious and upper casteists and I was attacked and taunted. My lab was invaded and burned. I was tied to a pole and beaten. Illegal cases were framed and foisted against me, and I was handcuffed and led through streets, during police inquiries and court trials/hearings and imprisoned. I am a victim of casteism and untouchability, discrimination and negligence and conspiracies and prosecutions.

Dear world scientists, I have introduced numerous unique ideas and doctrines that conquer the creation and tried unsuccessfully to fulfil them but I am unable to complete them due to lack of support and opportunities. But I can say with confidence that scientists will fulfill them someday in the future, as all these have scientific possibilities. I request world scientists to do research and studies in that direction. Time goes by, old age and health problems surround me. I am now making my life's last journey to the worlds of no return in disregard and despair, poverty and illness with Severe Bronchial Asthma and its associated issues. Breathing becomes difficult, illness weakening my health, my mind slows down, losses of balance and forgetfulness are coming. It is not known how long I will live and when I will die,

However, I know that my time is near and someday I will die suddenly without you knowing.
Under the aforementioned circumstances, I am making this humble appeal to theWorld scientists. Although I have done many investigations, my favorite invention is the Indian Monsoon Time Scale. However, I designed this as a manual with little information. If we create a computationally accurate Indian Monsoon Time Scale with complete data of low pressure systems, depressions, cyclones and others from 1880 to the present, a highly accurate Indian Monsoon Time Scale will be developed and it will unravel the mysteries of India's monsoon. Accordingly, scientists should conduct research and implement the Indian Monsoon Time Scale for the service of people ..... Wish me goodbye.

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Kotak Bank A/C No. 8447 502 446
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8.In 1988, Sri K.R.Narayanan recommended the Geoscope project proposals to the Council of Scientific & Industrial Research in the capacity of Vice-President, Council of Scientific & Industrial Research for further research and implementation.
9.In 1989, As per the directions of the Council of Scientific & Industrial Research, a detailed report on the Geoscope project was submitted to the National Geophysical Research Institute for further research and implementation.
10.In 1989, The Hon'ble High-Court of Andhra Pradesh was also issued orders to the Government of India, Council of Scientific & Industrial Research, New Delhi, National Geophysical Research Institute, Hyderabad for provision of research facilities to carry out scientific investigations on the Geoscope Project Proposals. When I met the N.G.R.I, they are insulted, refused to provide research facilities and pushed out to the gate.
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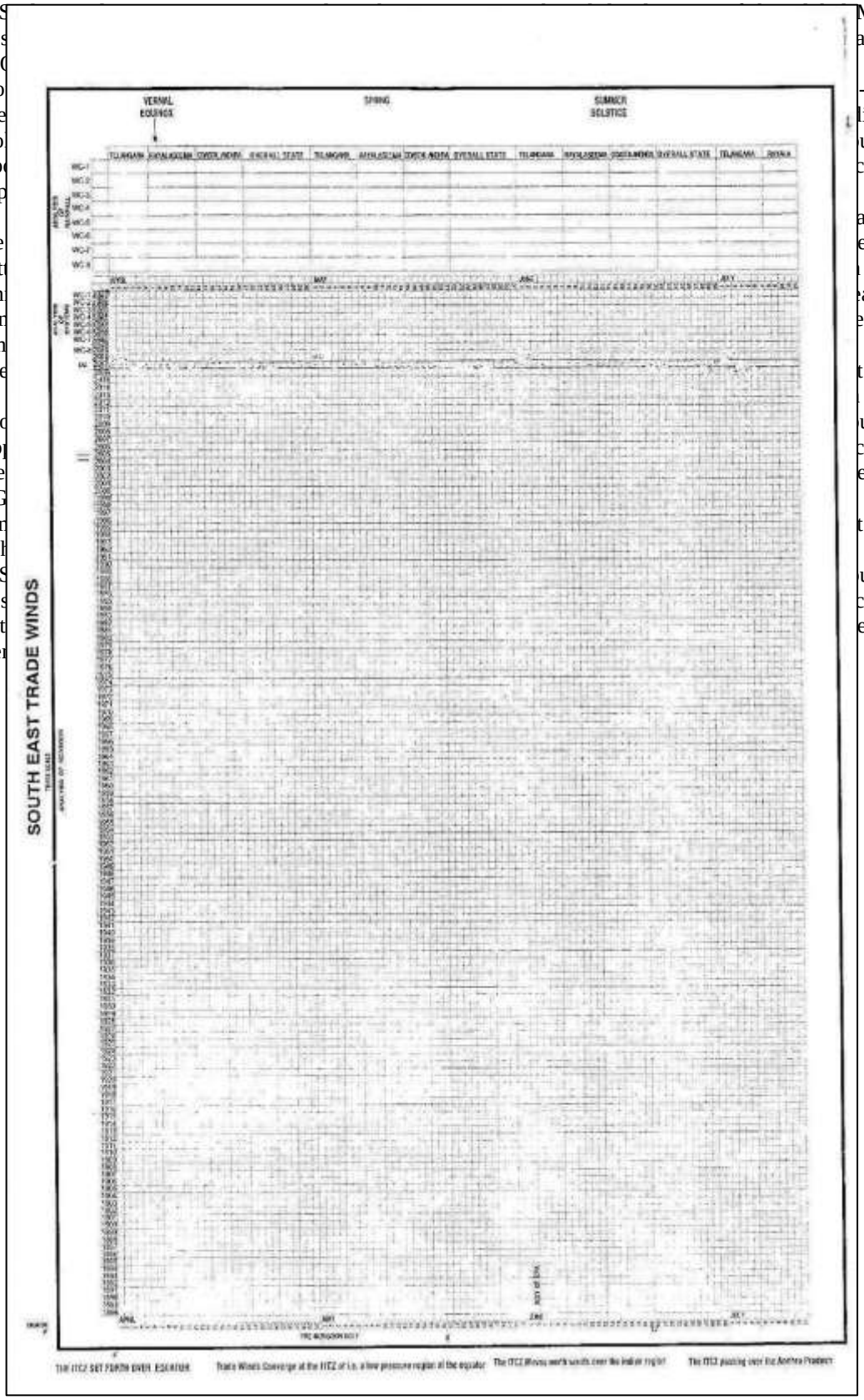
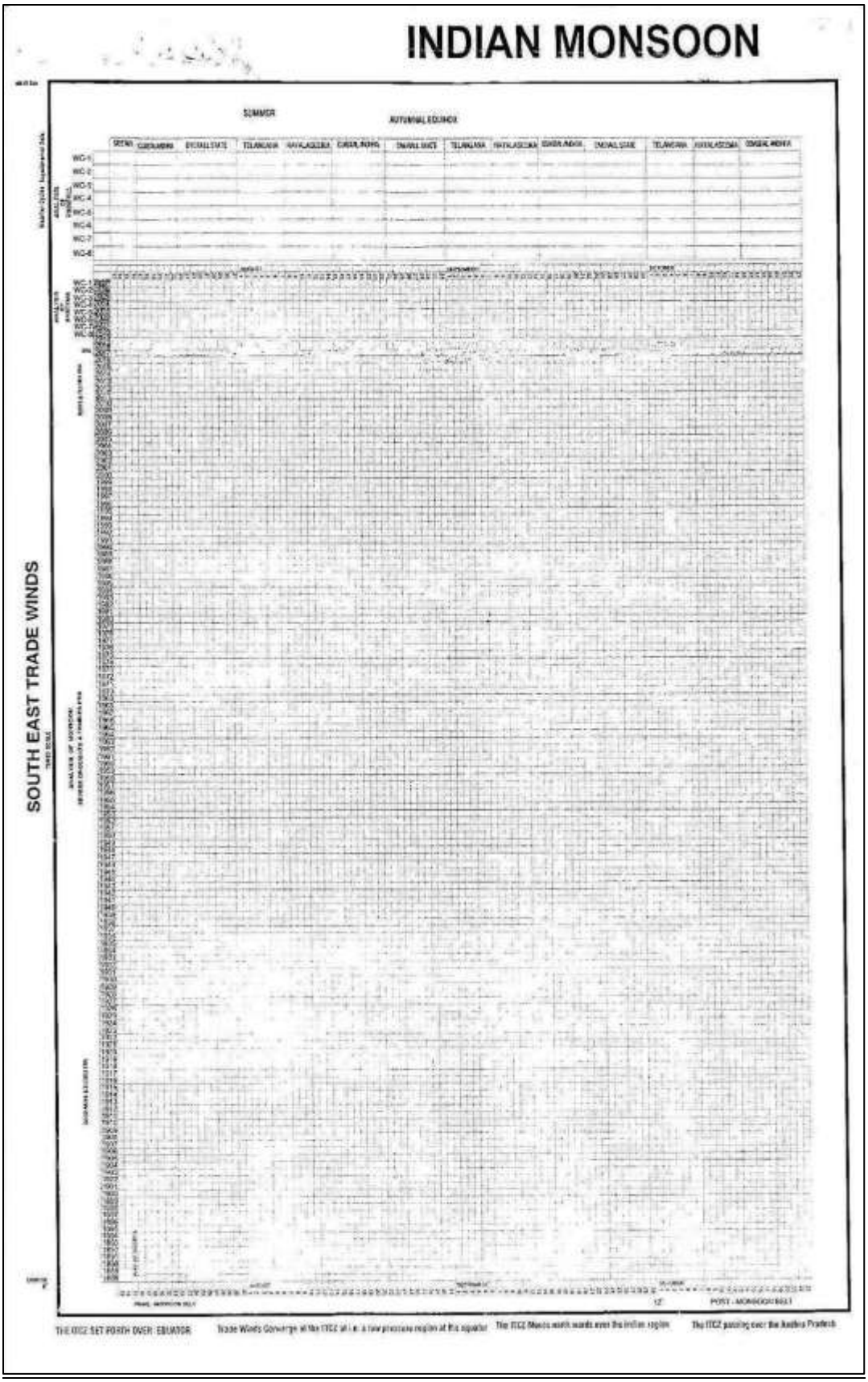
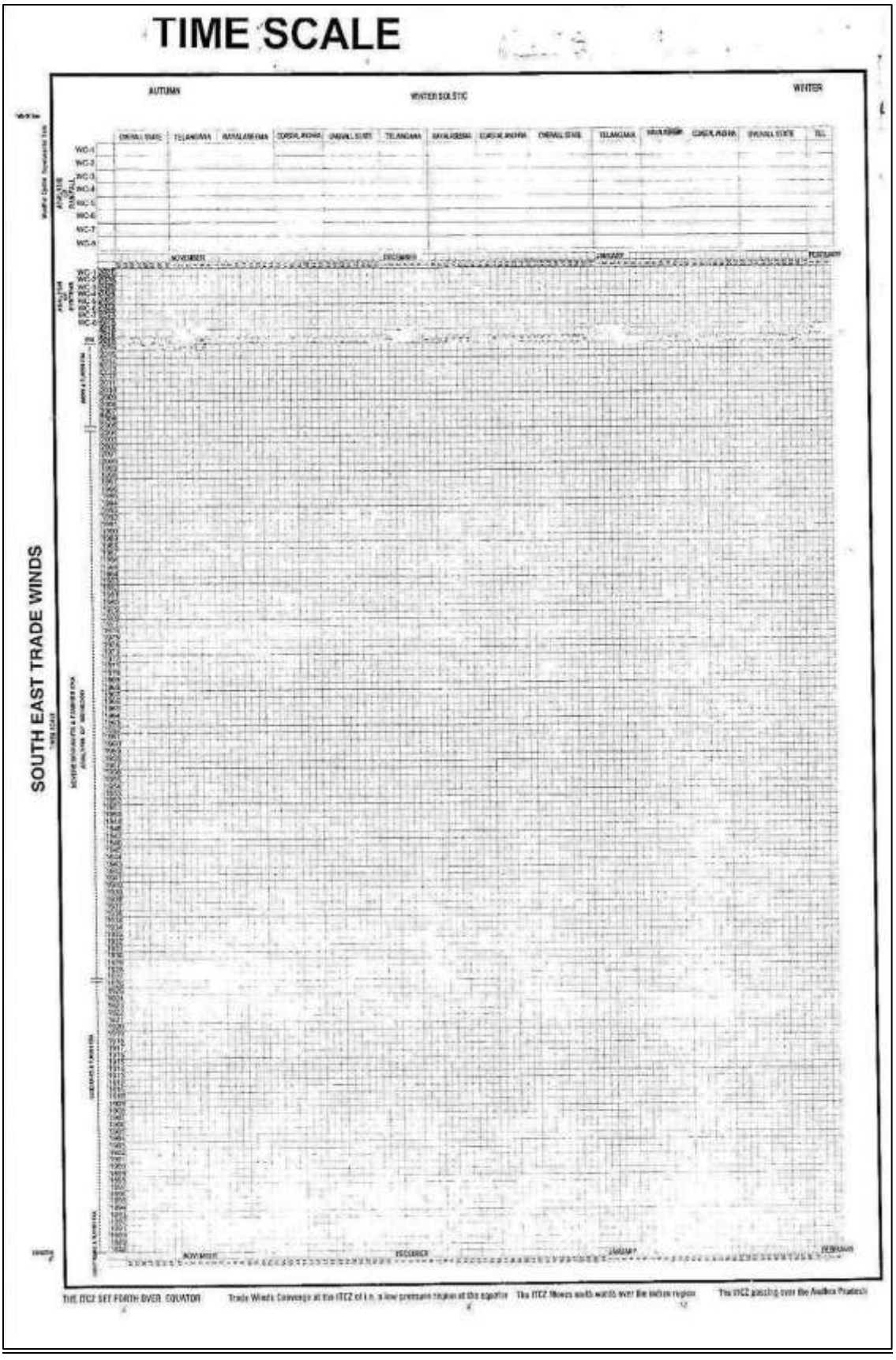
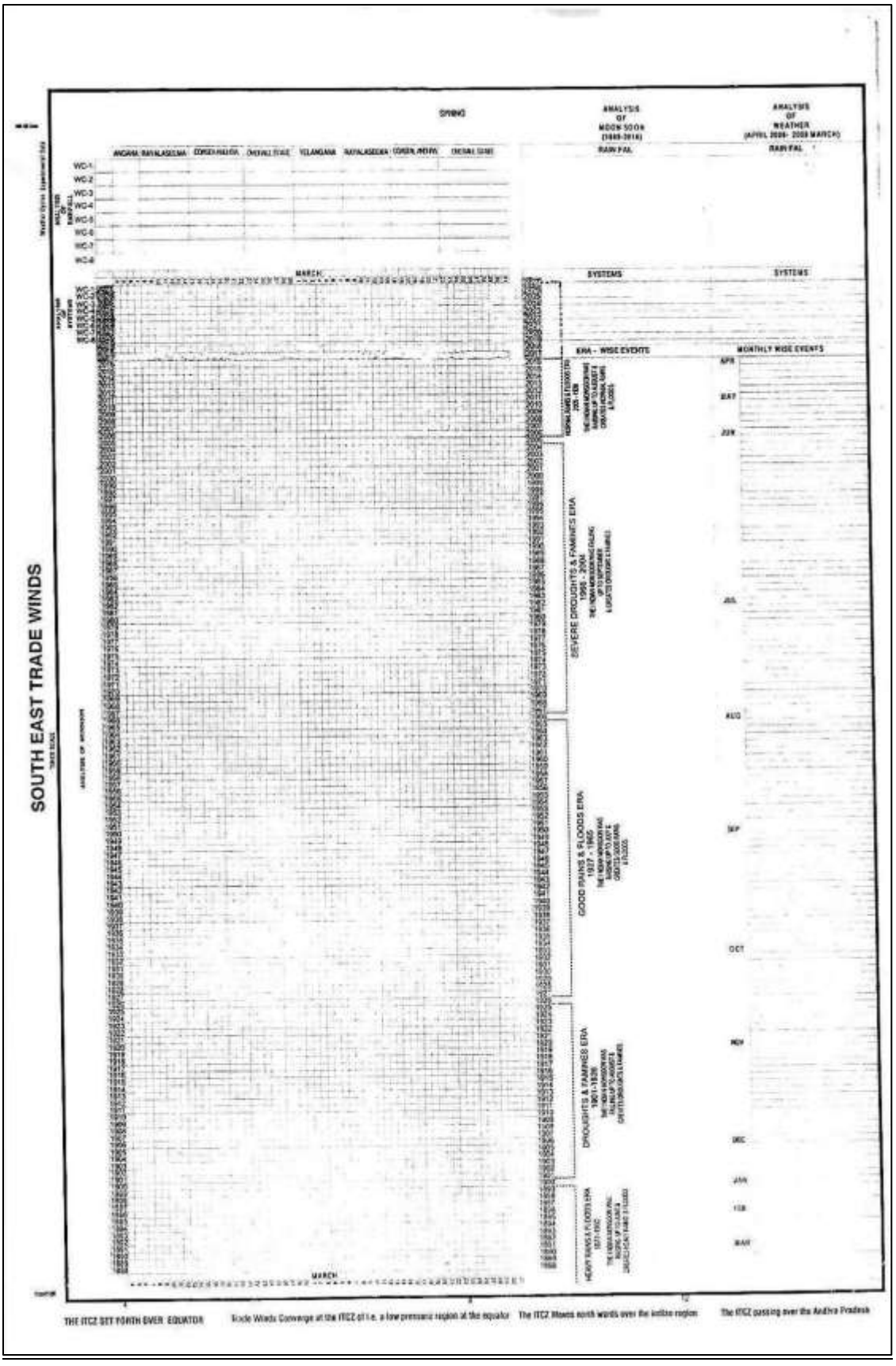



INDIAN MONSOON
SUMMER
AUTUMNAL EQUINOX
SOUTH EAST TRADE WINDS
THE ITCZ SET FORTH OVER EQUATOR


TIME SCALE
AUTUMN
WINTER SOLSTIC
WINTER
SOUTH EAST TRADE WINDS
NOVEMBER
DECEMBER
JANUARY
FEBRUARY
THE ITCZ SET FORTH OVER EQUATOR


SOUTH EAST TRADE WINDS
SYNOPSIS
ANALYSIS OF MOON SOON (1989-2014) RAIN FALL
ANALYSIS OF WEATHER (APRIL 2008- 2008 MARCH) RAIN FALL
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SYSTEMS
ERA - WISE EVENTS
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SEVERE DROUGHTS & FAMINES ERA
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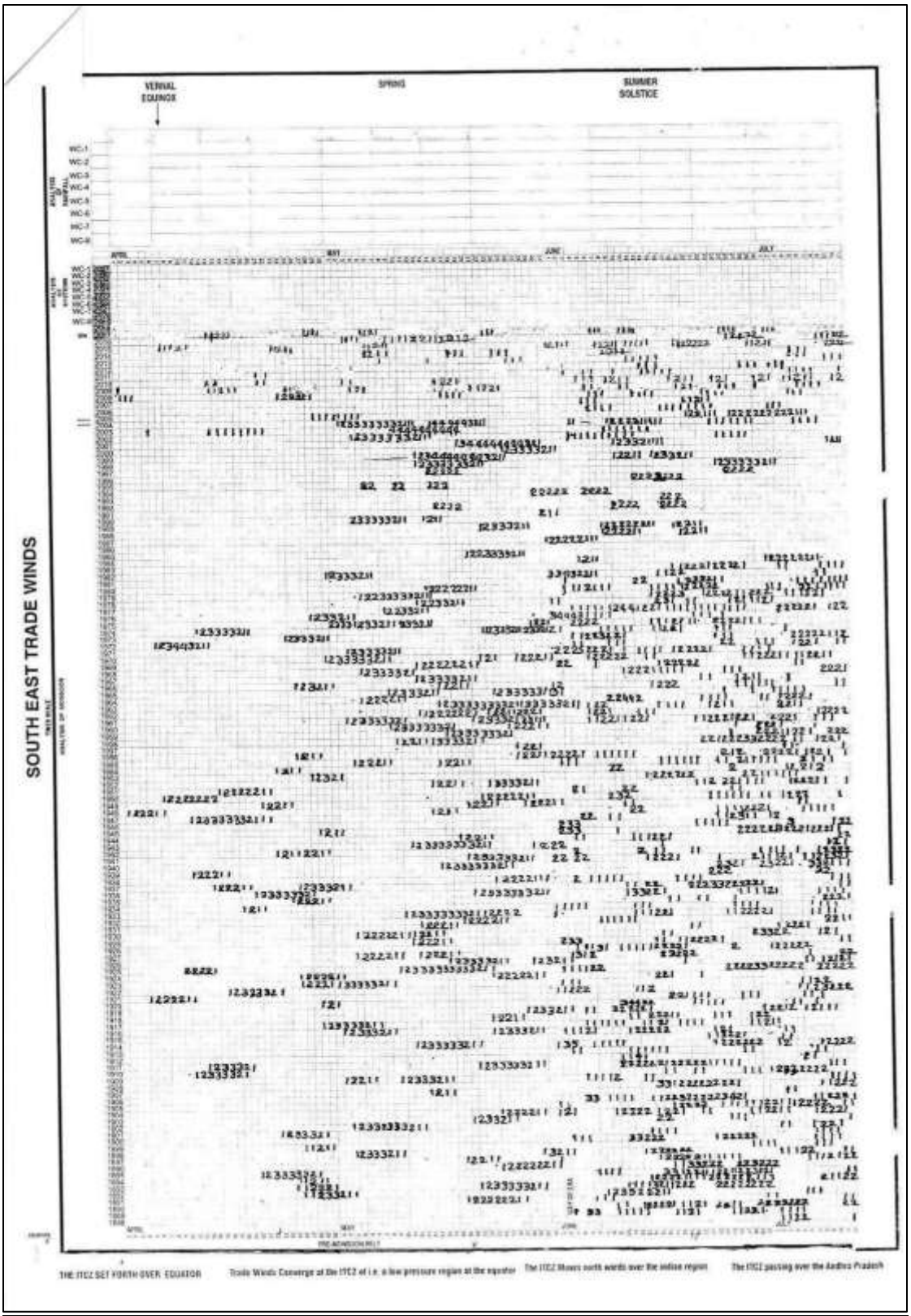
1937 - 1965
DROUGHTS & FAMINES ERA
MARCH
THE ITCZ SET FORTH EVER EQUATOR
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator
The ITCZ Moves north wards over the indian region
The ITCZ passing over the Andhra Pradesh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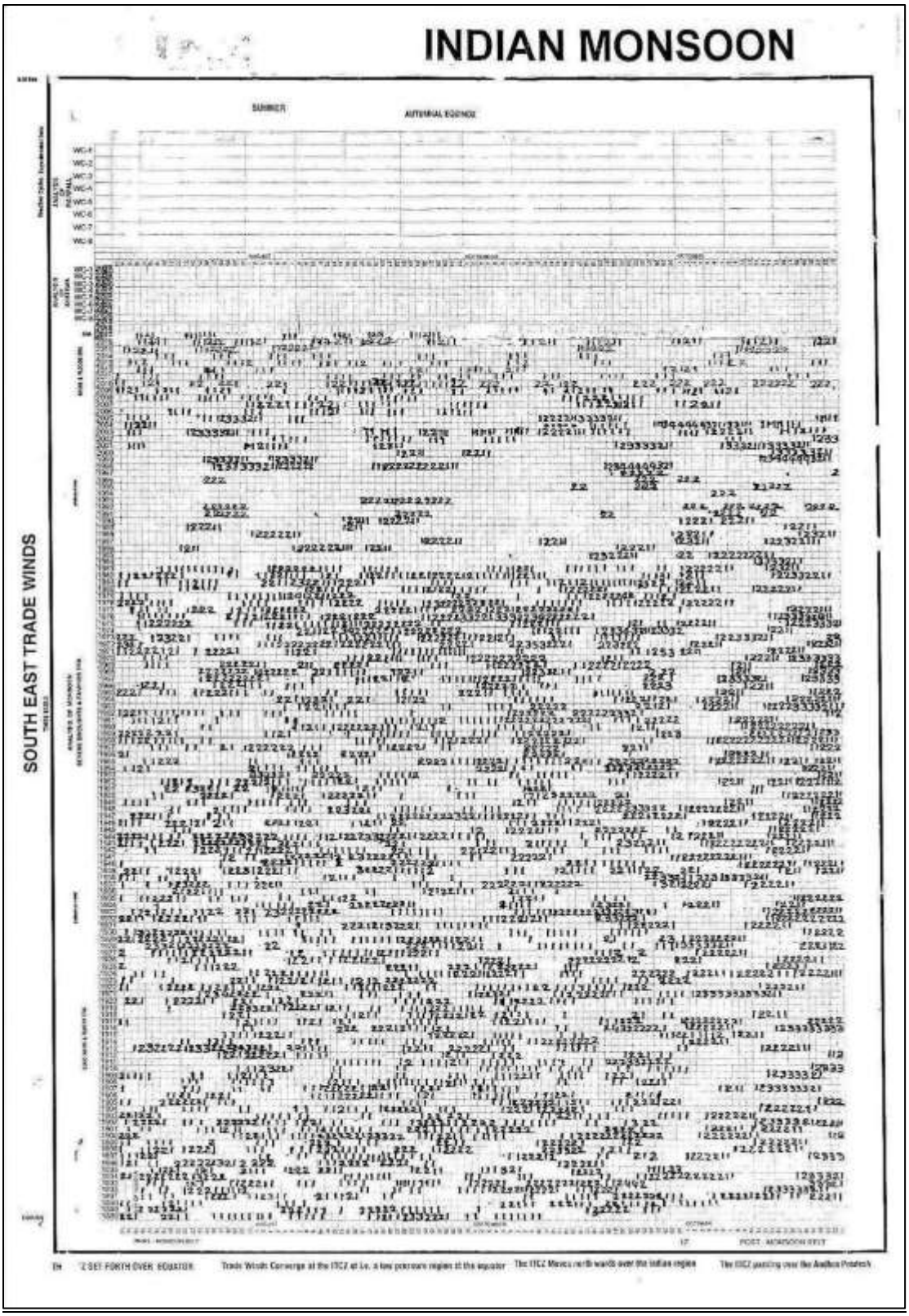
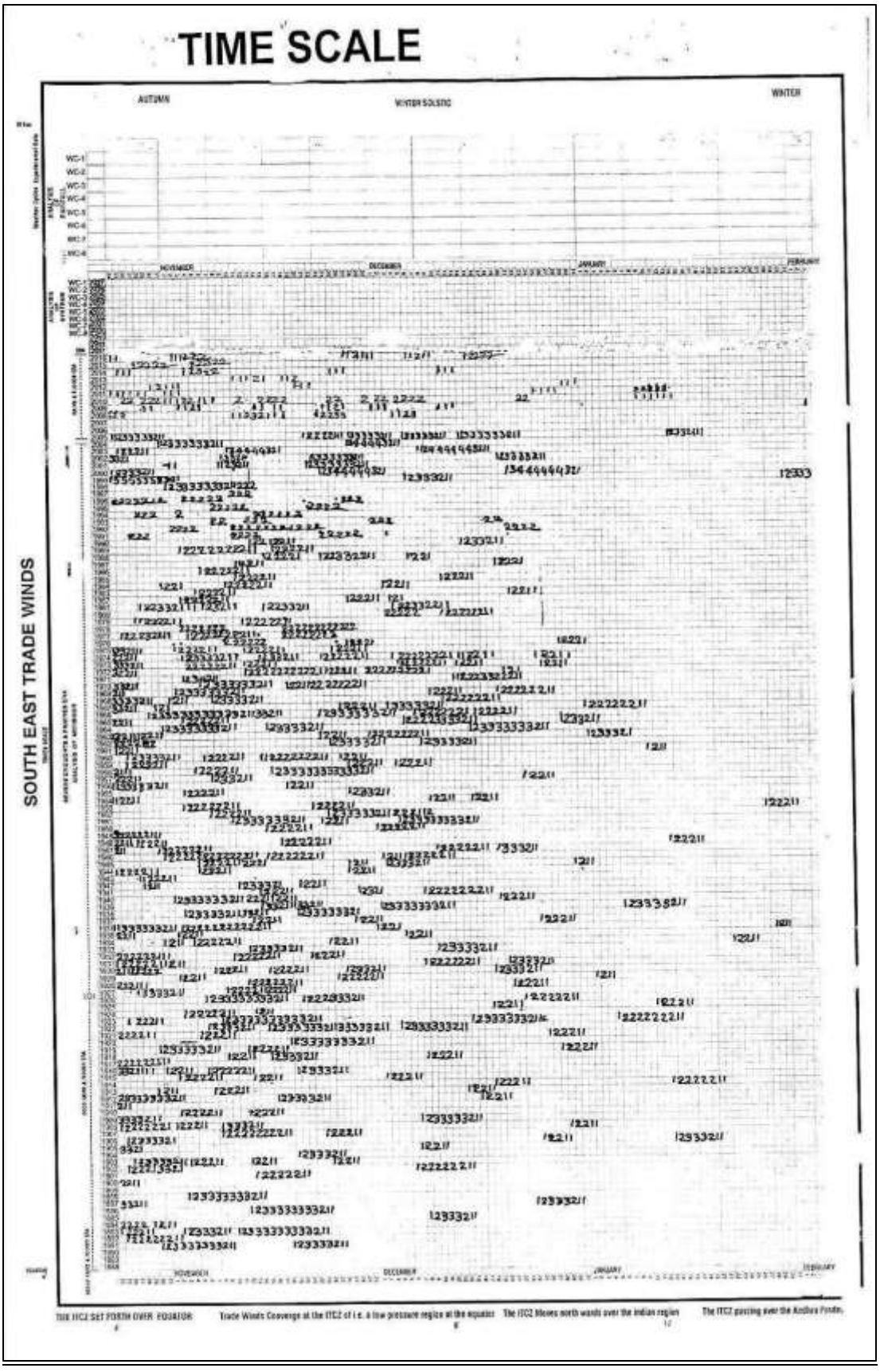
SOUTH EAST TRADE WINDS


INDIAN MONSOON
SOUTH EAST TRADE WINDS


TIME SCALE
AUTUMN
WINTER SOLSTICE
WINTER
NOVEMBER
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JANUARY
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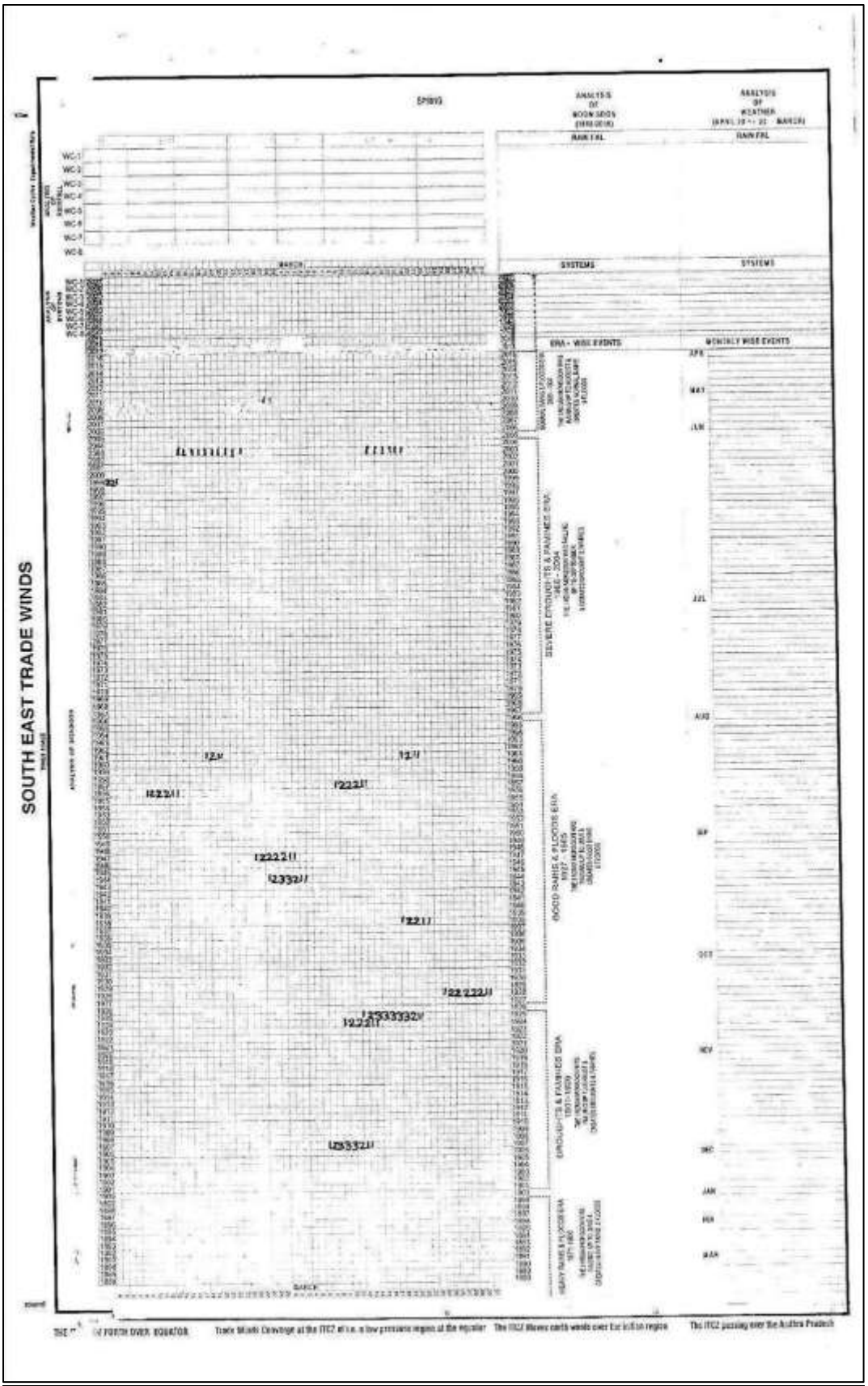
SOUTH EAST TRADE WINDS
THE ITCZ SET FORTH OVER EQUATOR
Trade Winds Coverage at the ITCZ of i.e. a low pressure region at the equator
The ITCZ Moves north wards over the Indian region
The ITCZ passing over the Andhra Pradesh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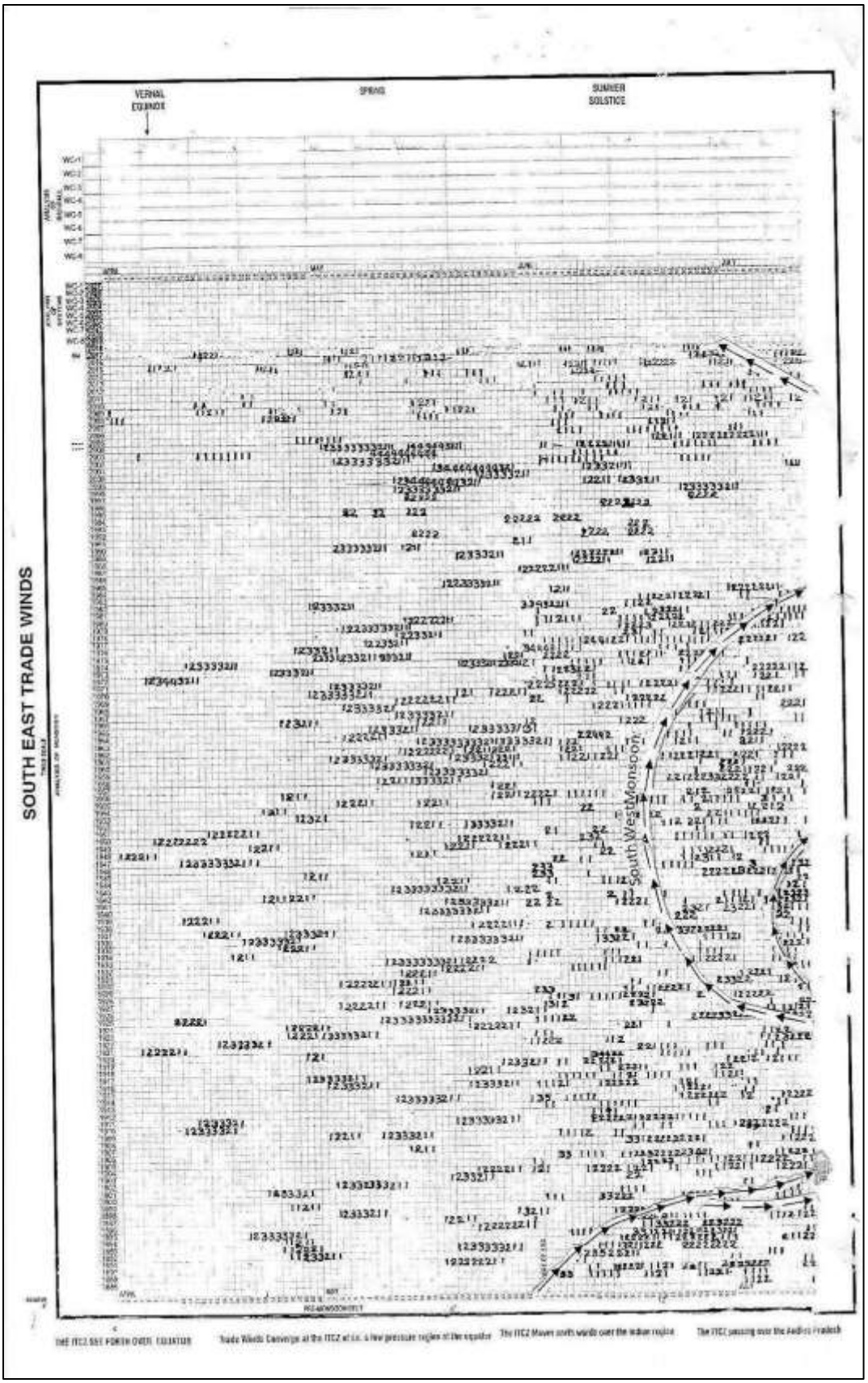
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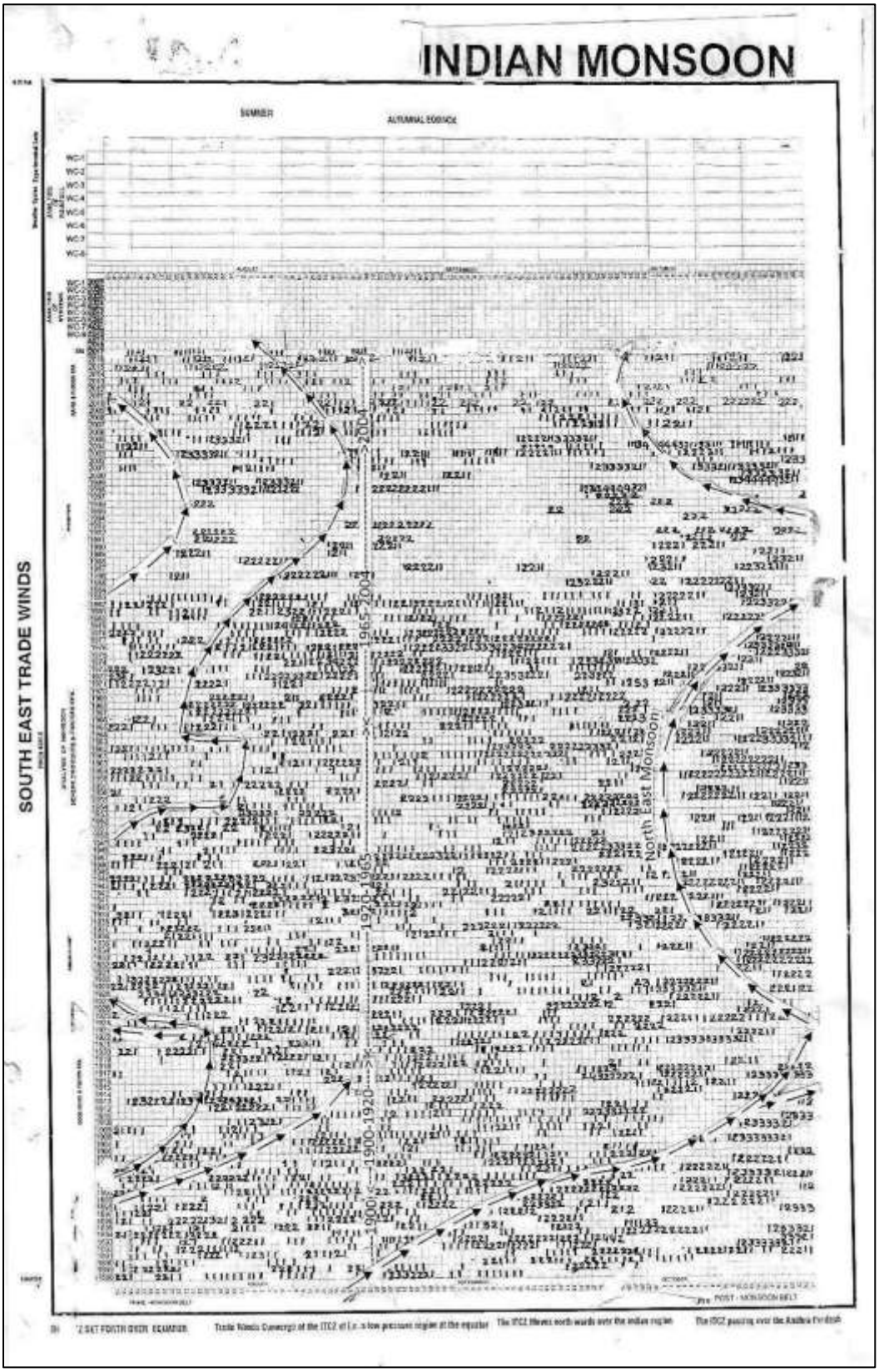
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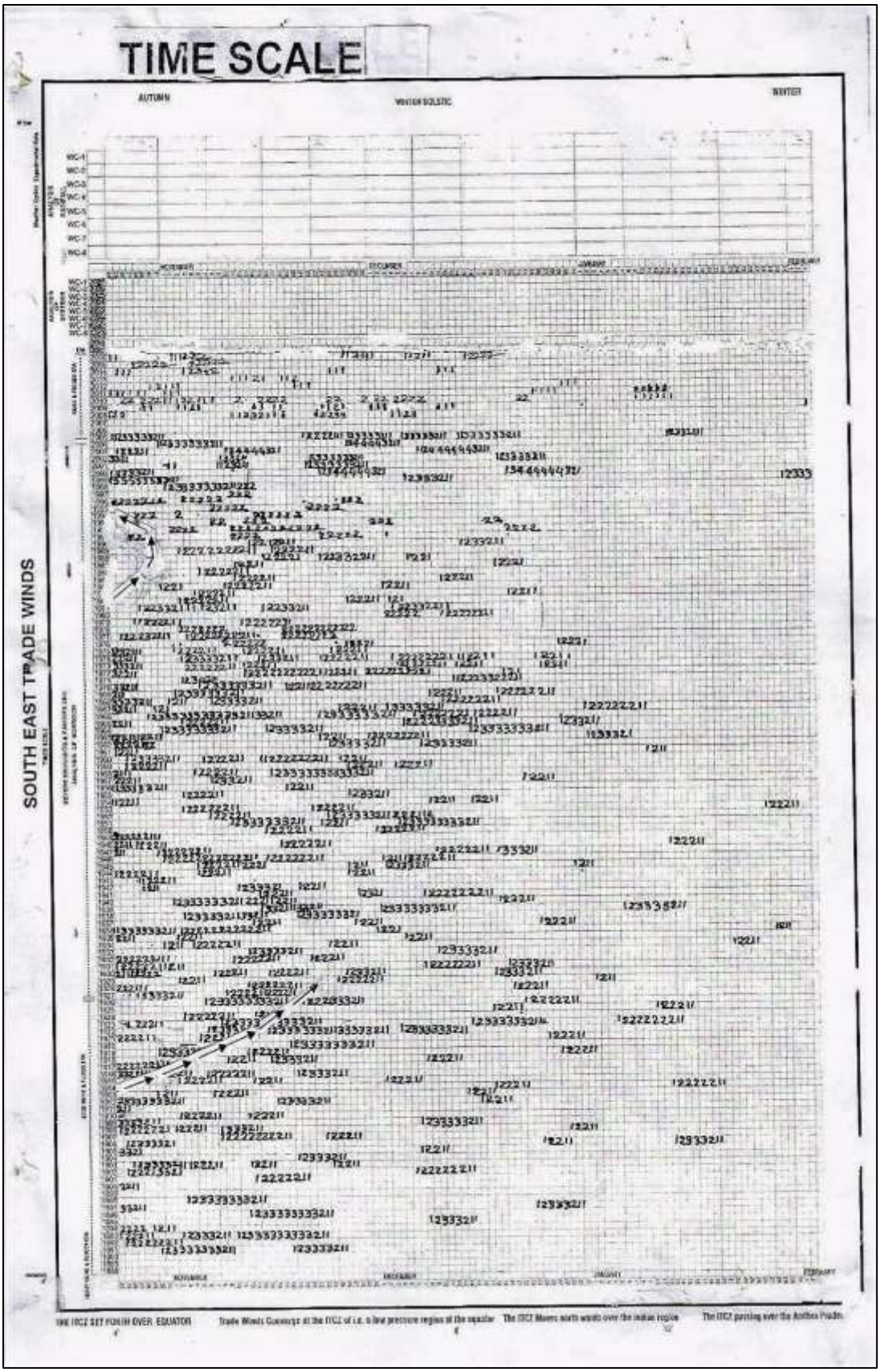
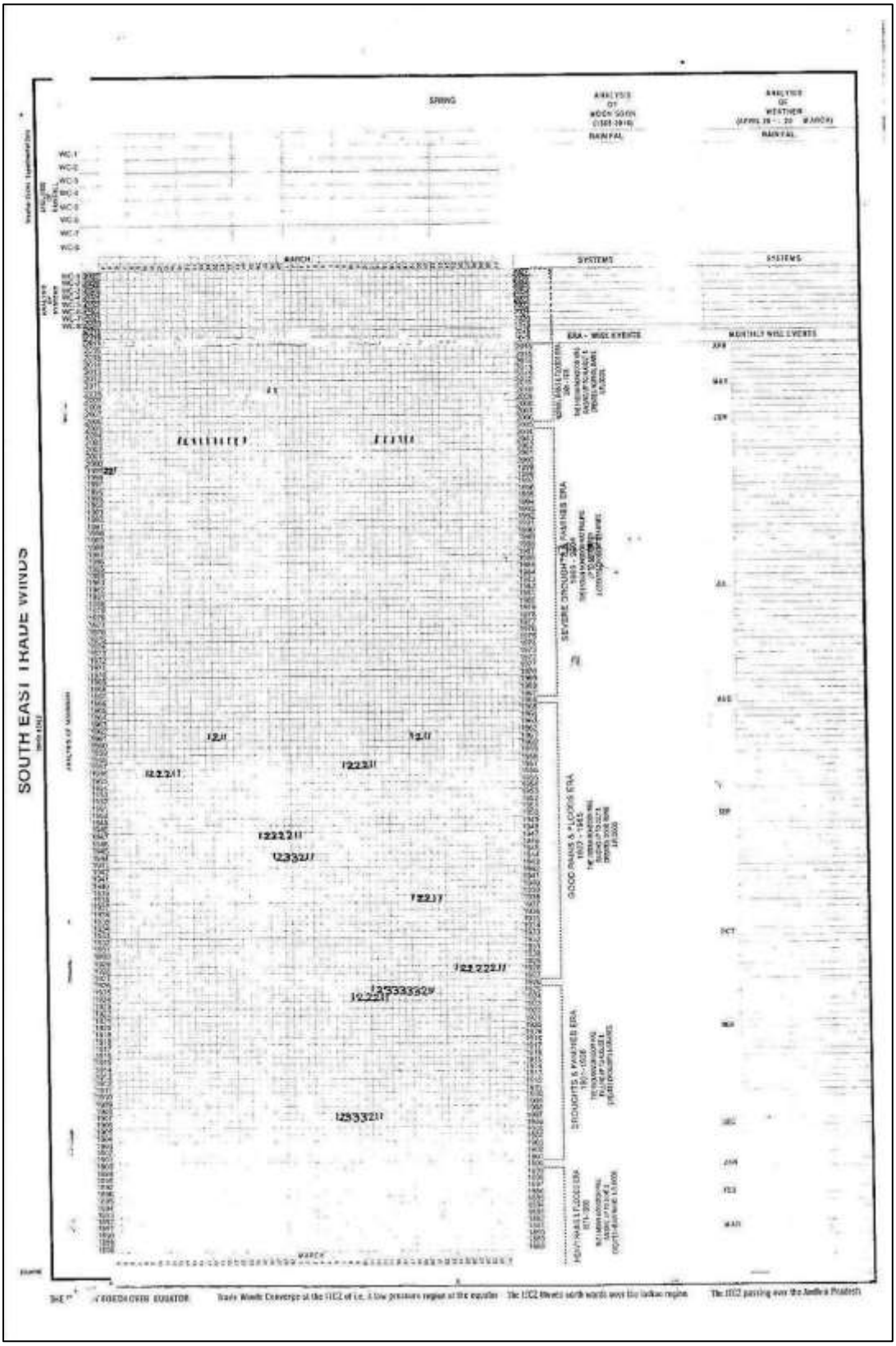
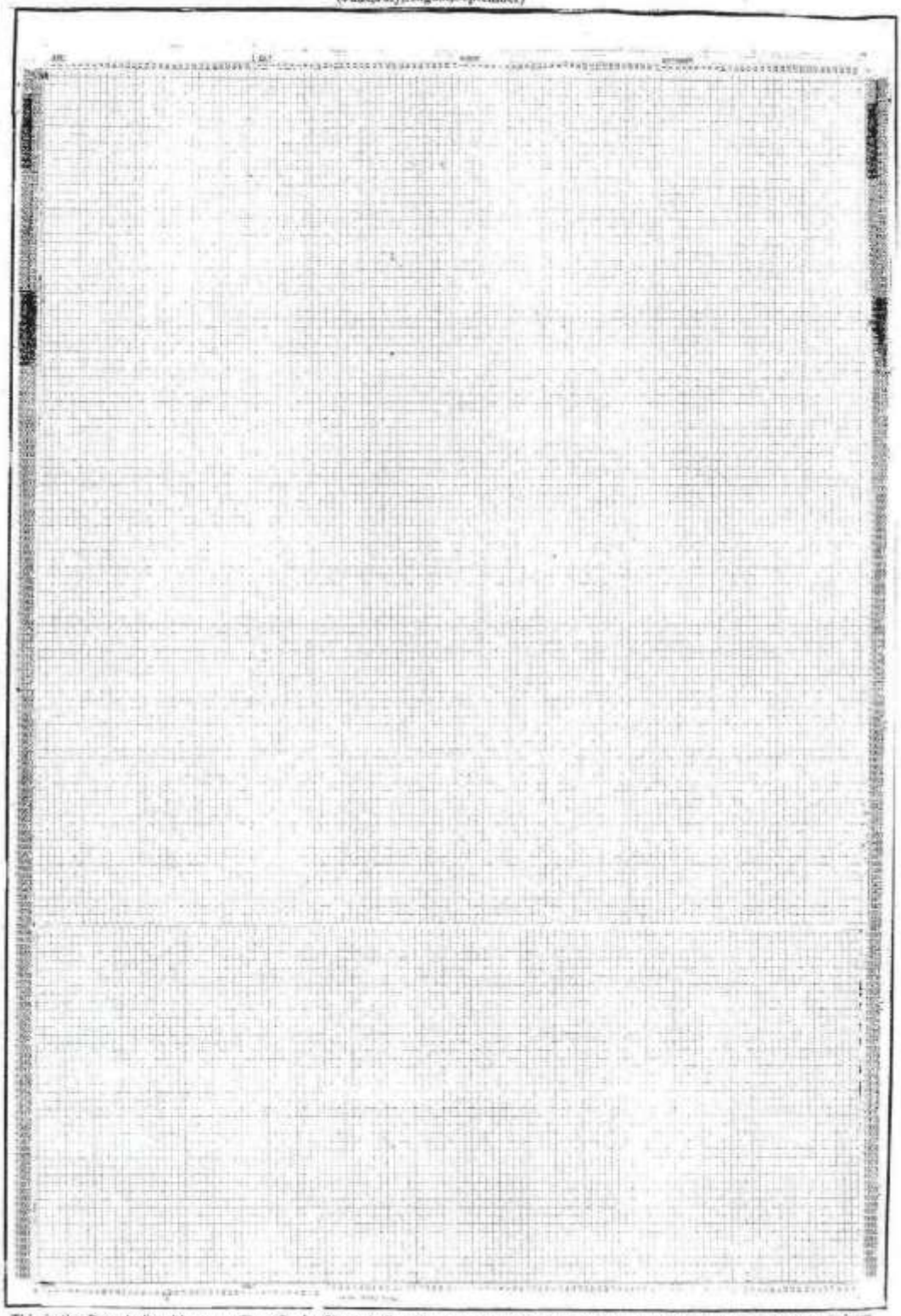

TIME SCALE
AUTUMN
WINTER
SOUTH EAST TRADE WINDS

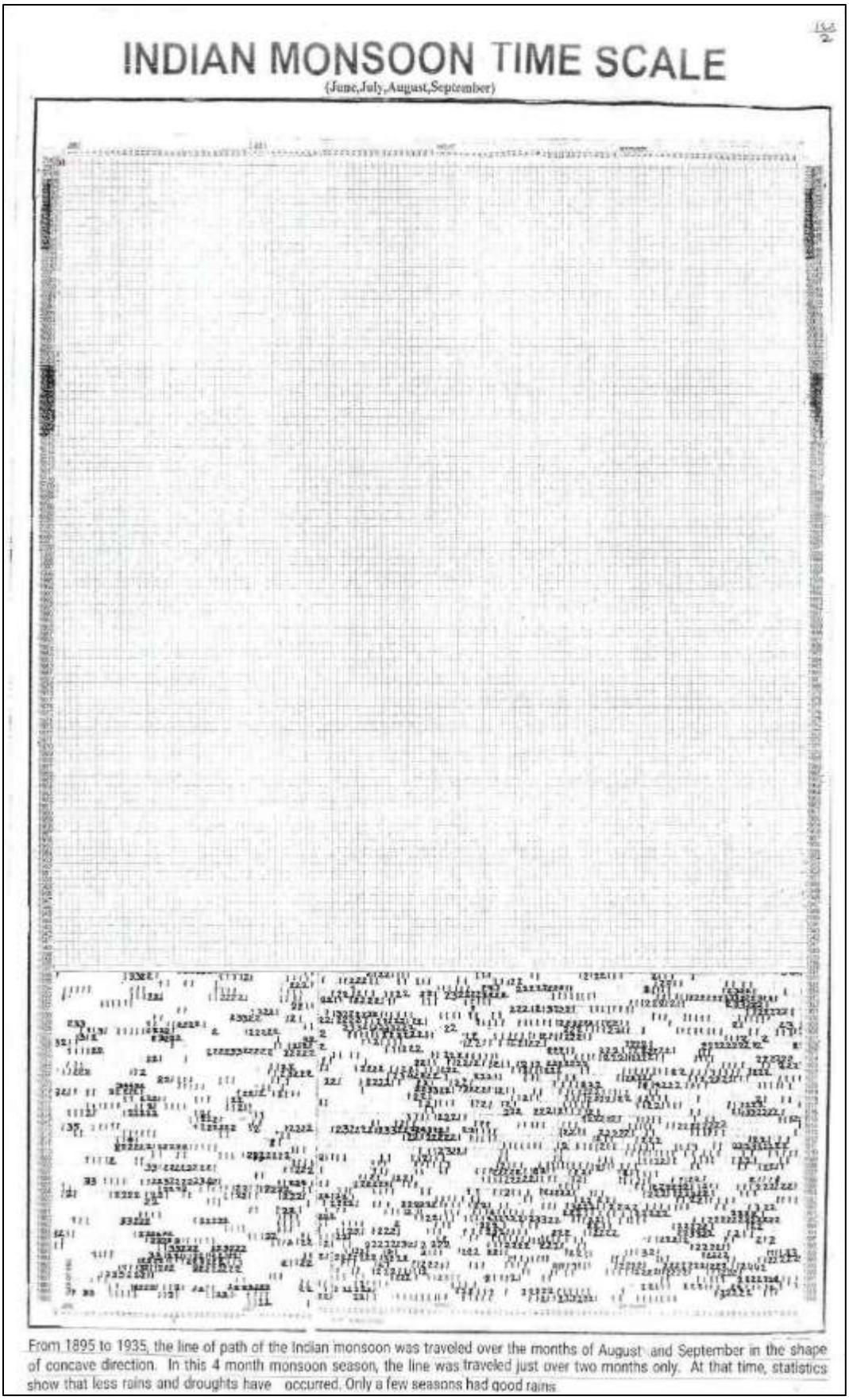

SOUTH EAST TRADE WINDS
SPRING
ANALYSIS OF MOON SOON (1981-2010) RAINFALL
ANALYSIS OF WEATHER (APRIL 29 - 30 MARCH) RAINFALL
MARCH
SYSTEMS
SYSTEMS
ERA - WISE EVENTS
MONTHLY WISE EVENTS
SEVERE DROUGHT & FAMINES ERA
GOOD RAINS & FLOODS ERA
DROUGHTS & FAMINES ERA
MARCH

INDIAN MONSOON TIME SCALE

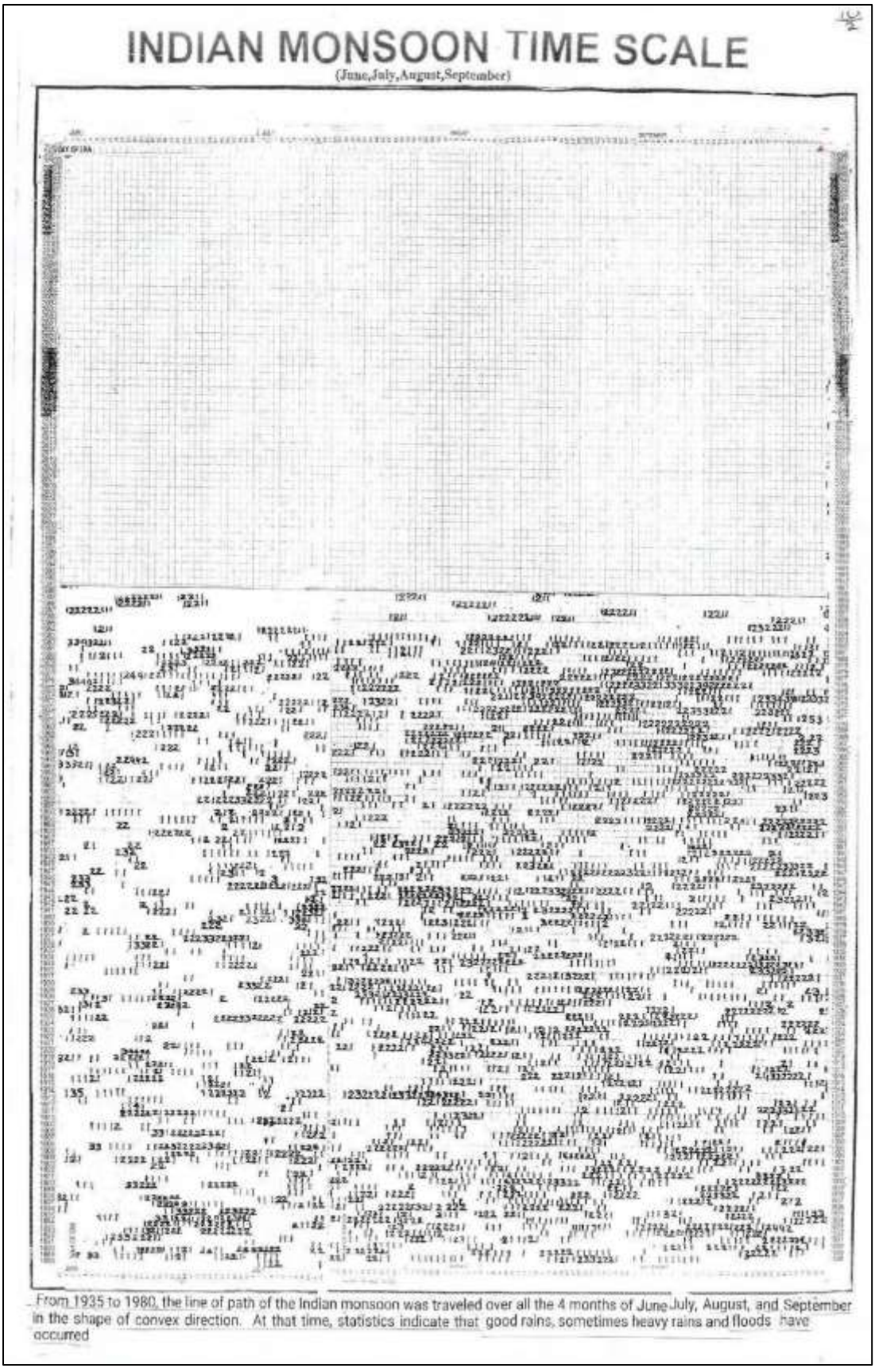
(June,July,August,September)



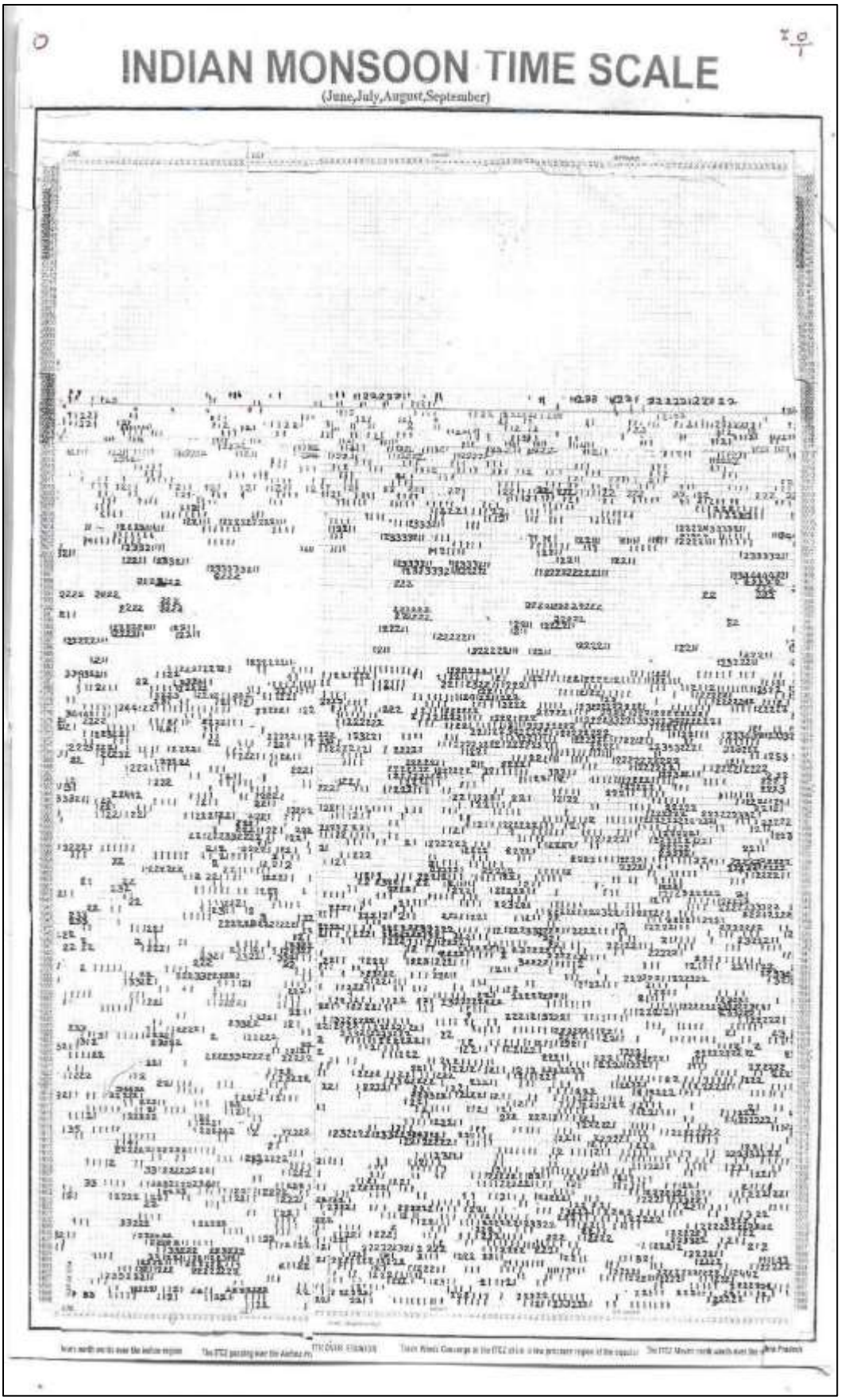
This is the Base Indian Monsoon Time Scale. Since, Indian Monsoon Time Scale is too long with 12 months, 5 seasons. So, Indian Monsoon Time Scale (monsoon season is designed for the crucial monsoon season. In this, monsoons are analyzed by filling the data from 1888 onwards.

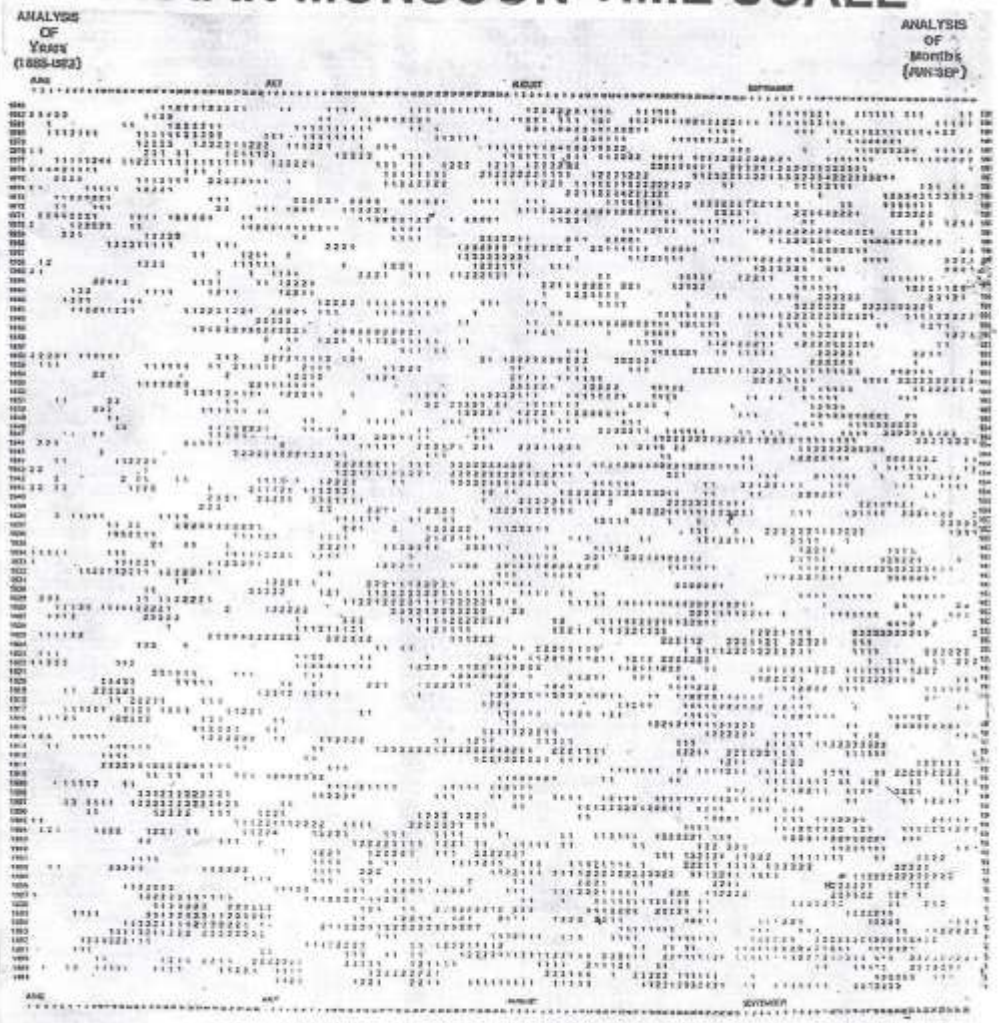


From 1895 to 1935, the line of path of the Indian monsoon was traveled over the months of August and September in the shape of concave direction. In this 4 month monsoon season, the line was traveled just over two months only. At that time, statistics show that less rains and droughts have occurred. Only a few seasons had good rains.



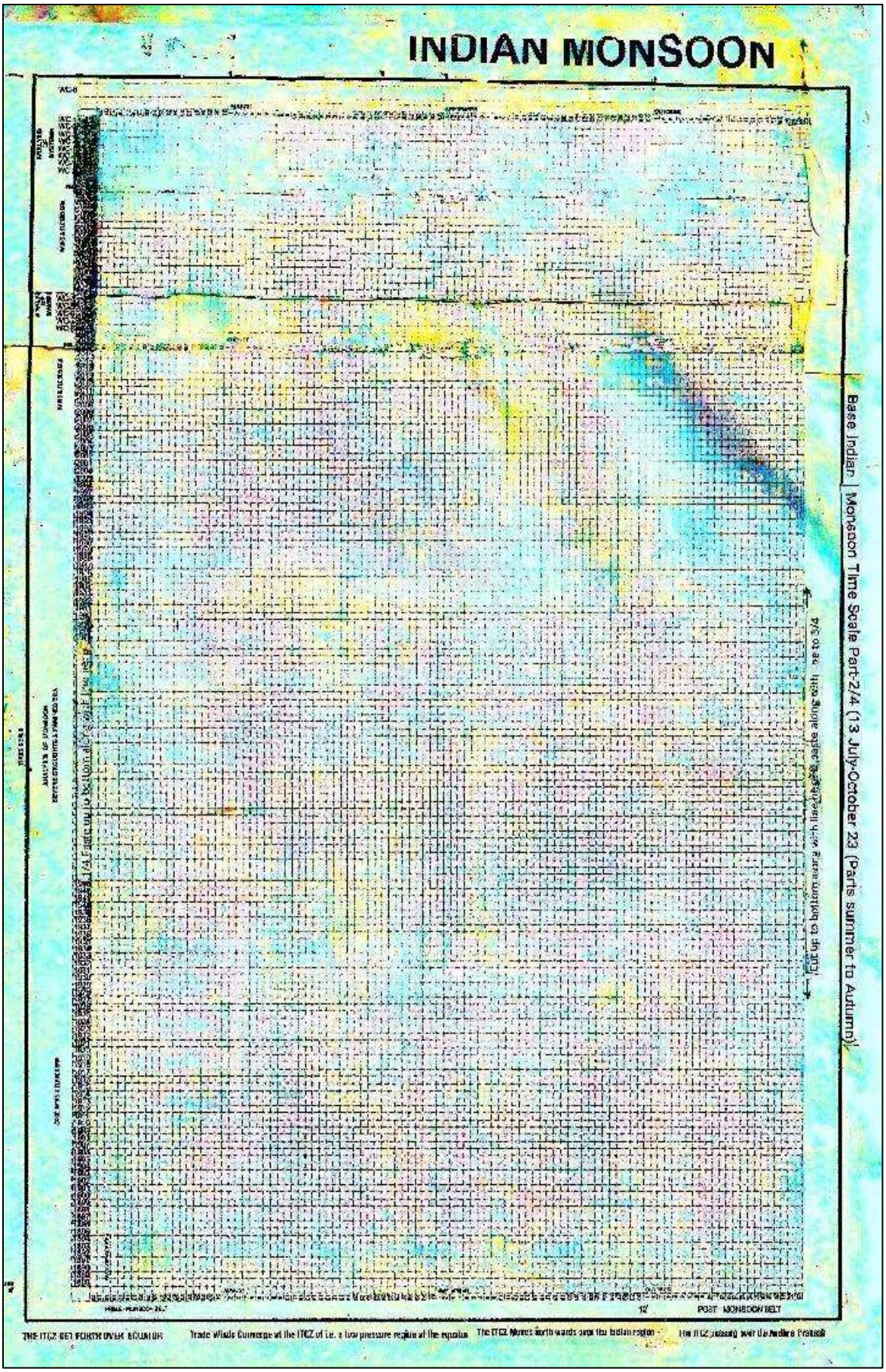
From 1935 to 1980, the line of path of the Indian monsoon was traveled over all the 4 months of June, July, August, and September in the shape of convex direction. At that time, statistics indicate that good rains, sometimes heavy rains and floods have occurred

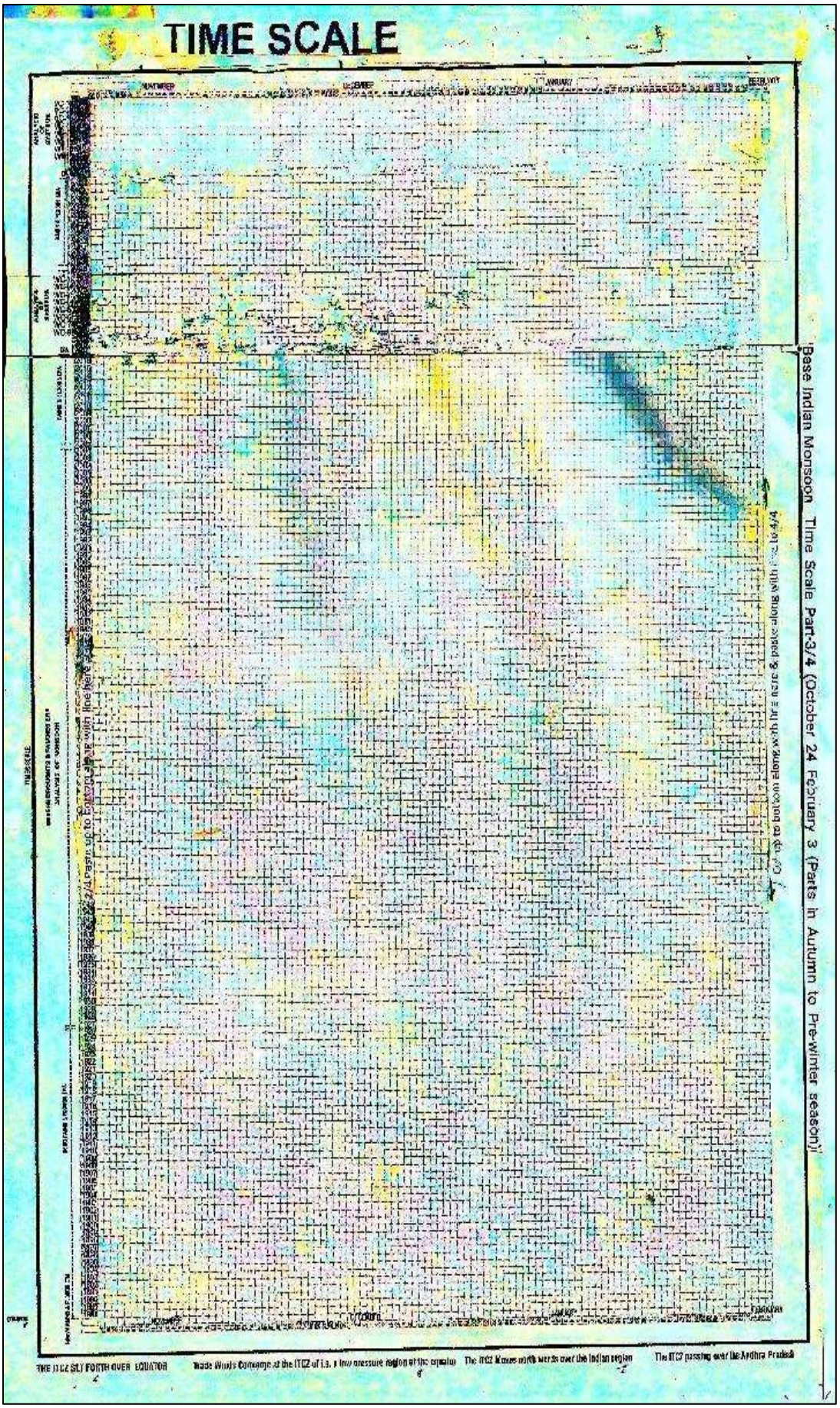

INDIAN MONSOON TIME SCALE
(June,July,August,September)

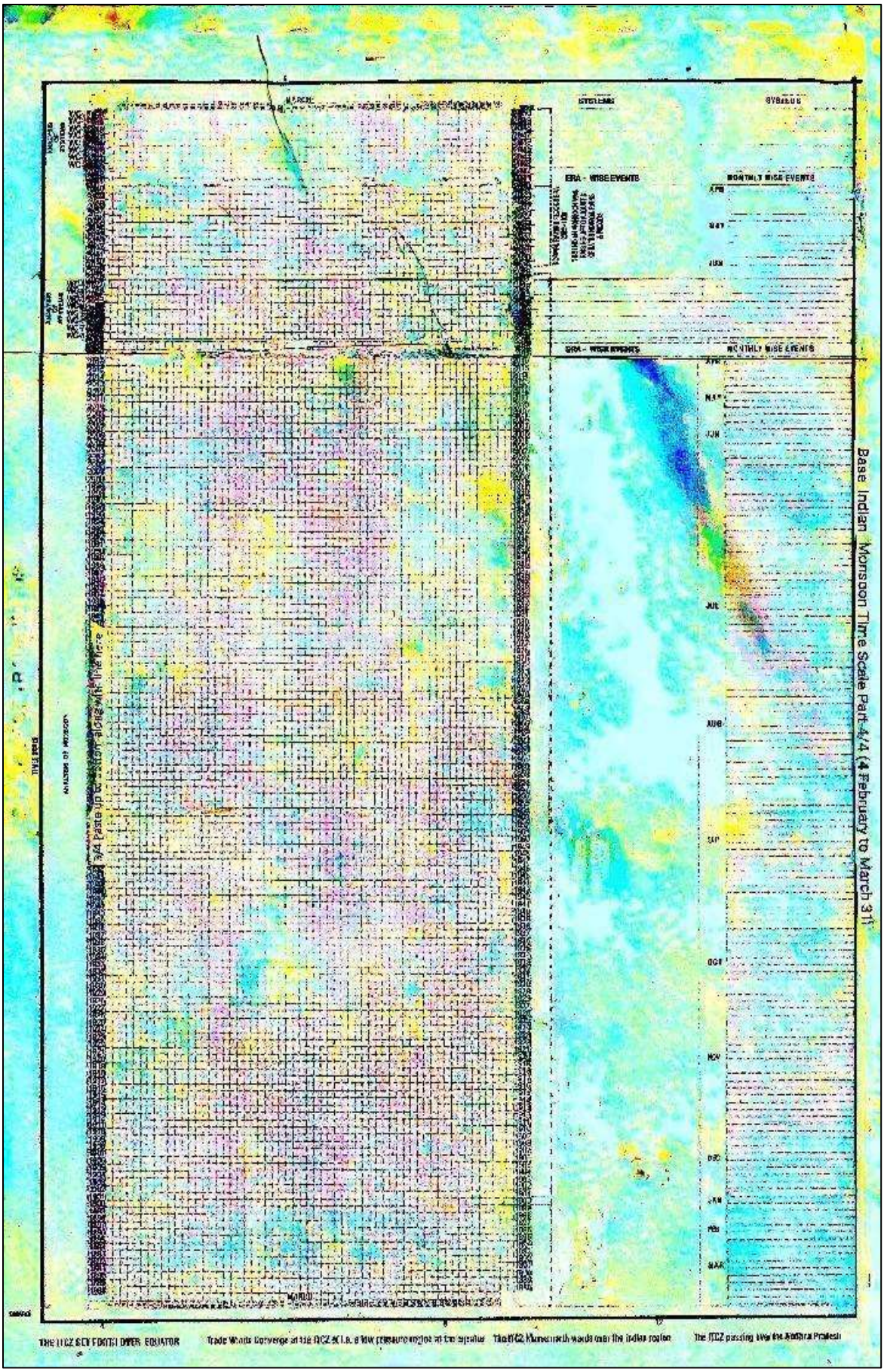


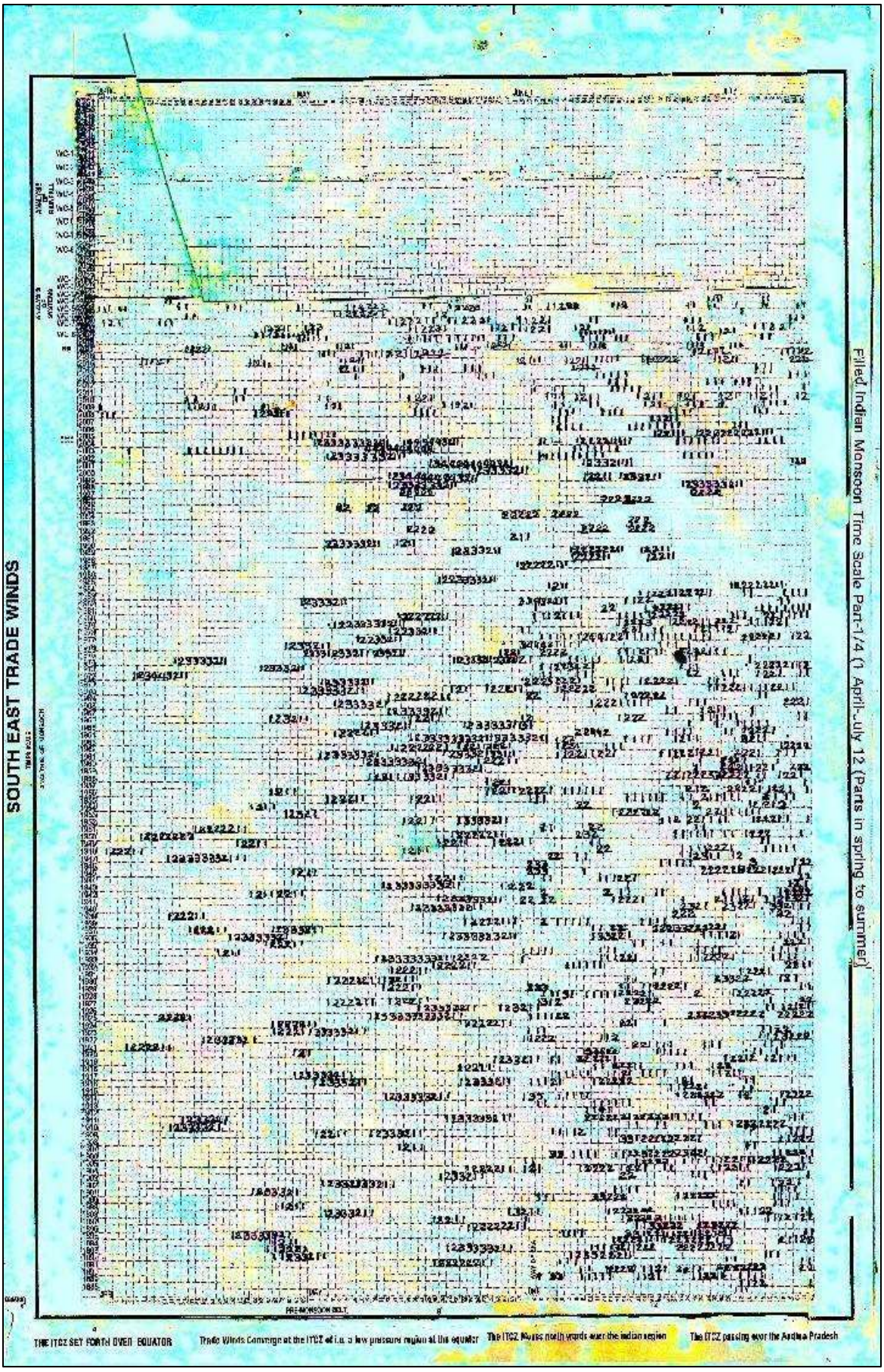
It is a partially computerized Indian monsoon time scale for the monsoon season from 1888 to 1983. Later, the computerization of the Indian Monsoon Time Scale was stopped due to extreme poverty and no support and opportunities.

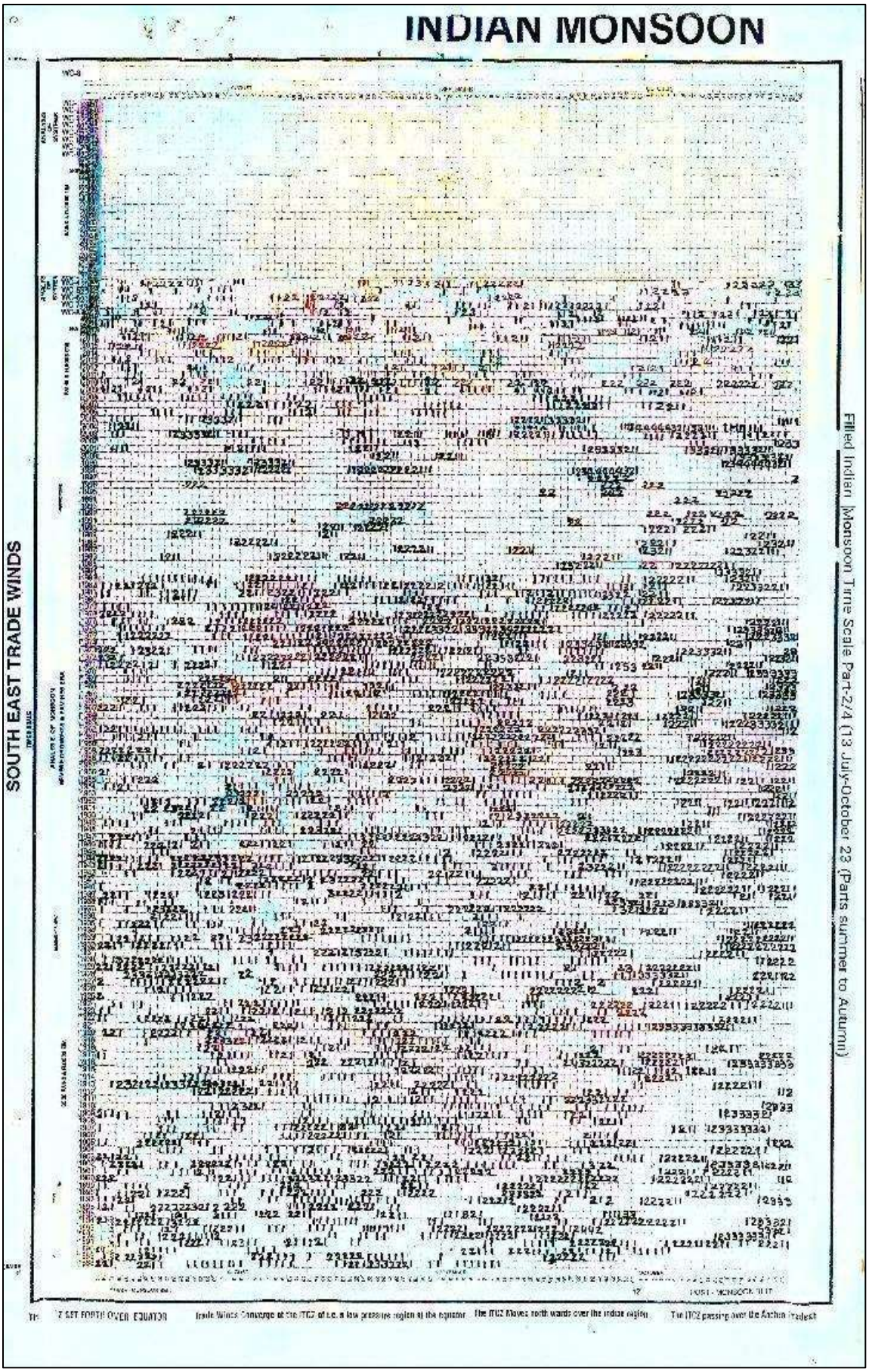

Base Indian Monsoon Time Scale Part-1/4 (1 April-July 12 (Parts in spring to summer)
THE ITCZ SET FORTH OVER EQUATOR
Trade Winds Converge at the ITCZ of i.e., a low pressure region at the equator
The ITCZ Moves north wards over the Indian region
The ITCZ passing over the Andhra Pradesh


INDIAN MONSOON
Base Indian Monsoon Time Scale Part-2/4 (13 July-October 23 (Parts summer to Autumn)
POST MONSOON BELT

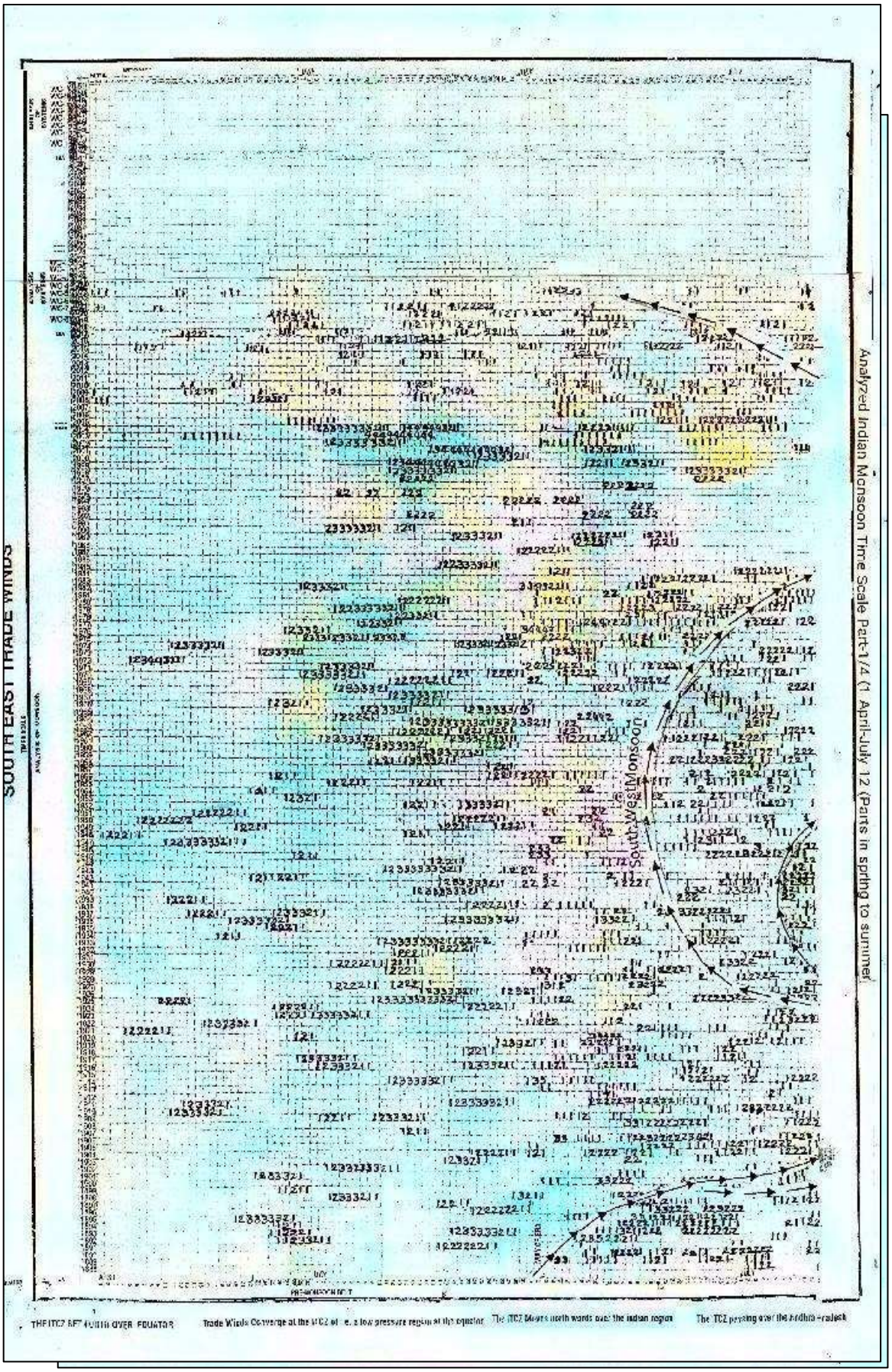

TIME SCALE
Base Indian Monsoon Time Scale Part-3/4 (October 24 February 3 (Parts in Autumn to Pre-winter season))

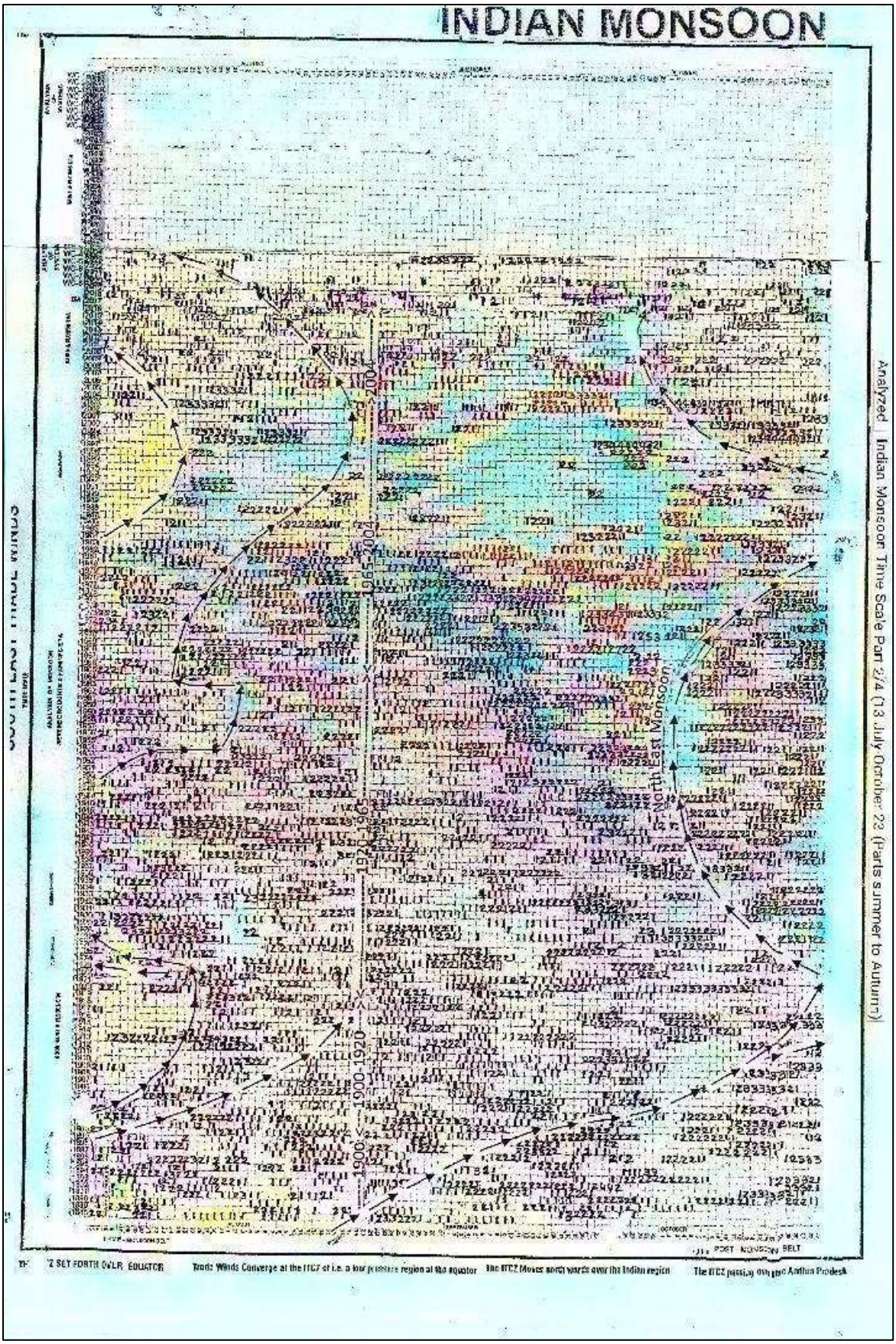

Base Indian Monsoon Time Scale Part-4/4 (4 February to March 31)
ERA - WISE EVENTS
MONTHLY WISE EVENTS
THE ITCZ SEEN FROM OVER EQUATOR
Trade Winds Converge at the ITCZ (i.e. a low pressure region at the equator)
The ITCZ Movement with winds over the Indian region
The ITCZ passing over the Andhra Pradesh

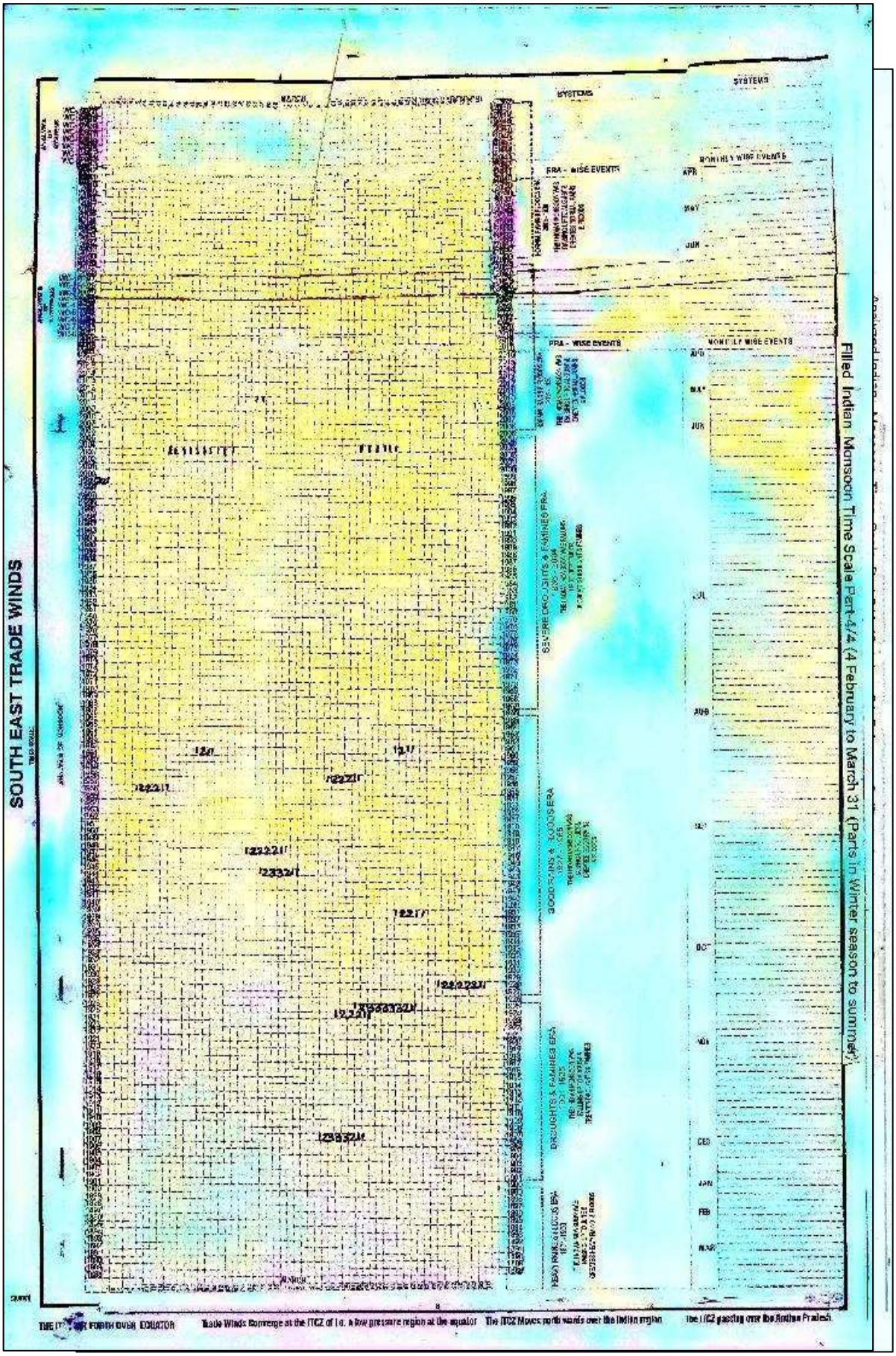

SOUTH EAST TRADE WINDS
Filled Indian Monsoon Time Scale Part-1/4 (1 April-July 12 (Parts in spring to summer)
THE ITCZ SET FORTH OVER EQUATOR
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator
The ITCZ Moves north words over the indian region
The ITCZ passing over the Andhra Pradesh

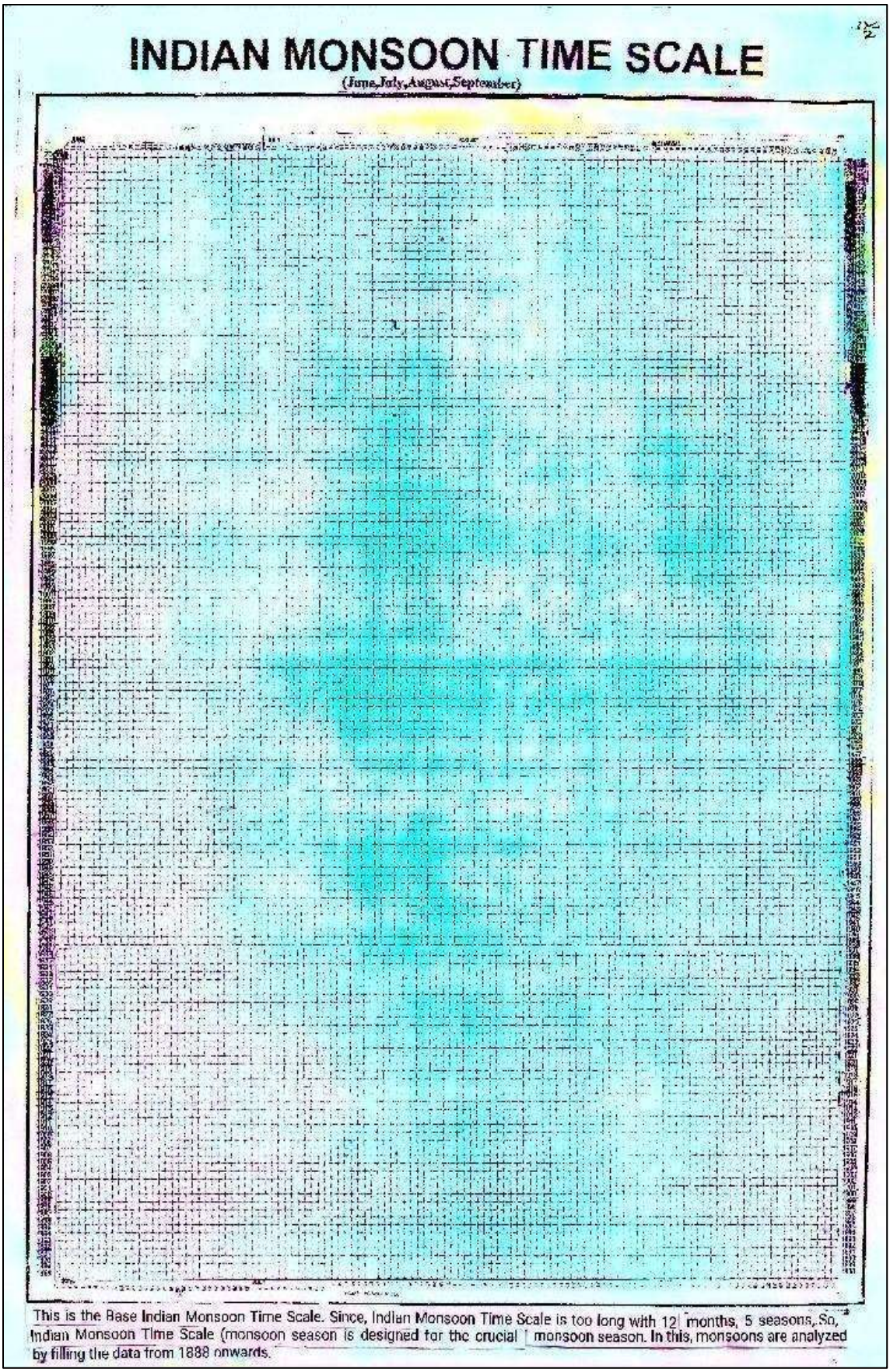

INDIAN MONSOON
SOUTH EAST TRADE WINDS
Filled Indian Monsoon Time Scale Part-2/4 (13 July-October 23 (Parts summer to Autumn)


TIME SCALE
SOUTH EAST TRADE WINDS
Filled Indian Monsoon Time Scale Part-3/4 (October 24 February 3 (Parts in Autumn to Pre-winter season)
THE ITCZ SET FORTH OVER EQUATOR
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator
The ITCZ Moves north wards over the indian region
The ITCZ passing over the Andhra Pradesh


SOUTH EAST TRADE WINDS
South West Monsoon
Analyzed Indian Monsoon Time Scale Part-1/4 (1 April-July 12 (Parts in spring to summer
THE ITCZ AT YEARLY OVER EQUATOR
Trade Winds Converge at the ITCZ or i.e. a low pressure region at the equator
The ITCZ Moves north words over the indian region
The ITCZ passing over the Andhra pradesh


INDIAN MONSOON
Analyzed Indian Monsoon Time Scale Part 2/4 (13 July-October 23 (Parts summer to Autumn)


SOUTH EAST TRADE WINDS
Filled Indian Monsoon Time Scale Part-4/4 (4 February to March 31 (Parts in Winter season to summer)
SYSTEMS
MONTHLY WISE EVENTS
FRA - WISE EVENTS
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
SEVERE DROUGHTS & FAMINES FRA
GOOD RAINS & FOOD SERA
DROUGHTS & FAMINES ERA
Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator
The ITCZ Moves north wards over the Indian region
the ITCZ passing over the Andhra Pradesh



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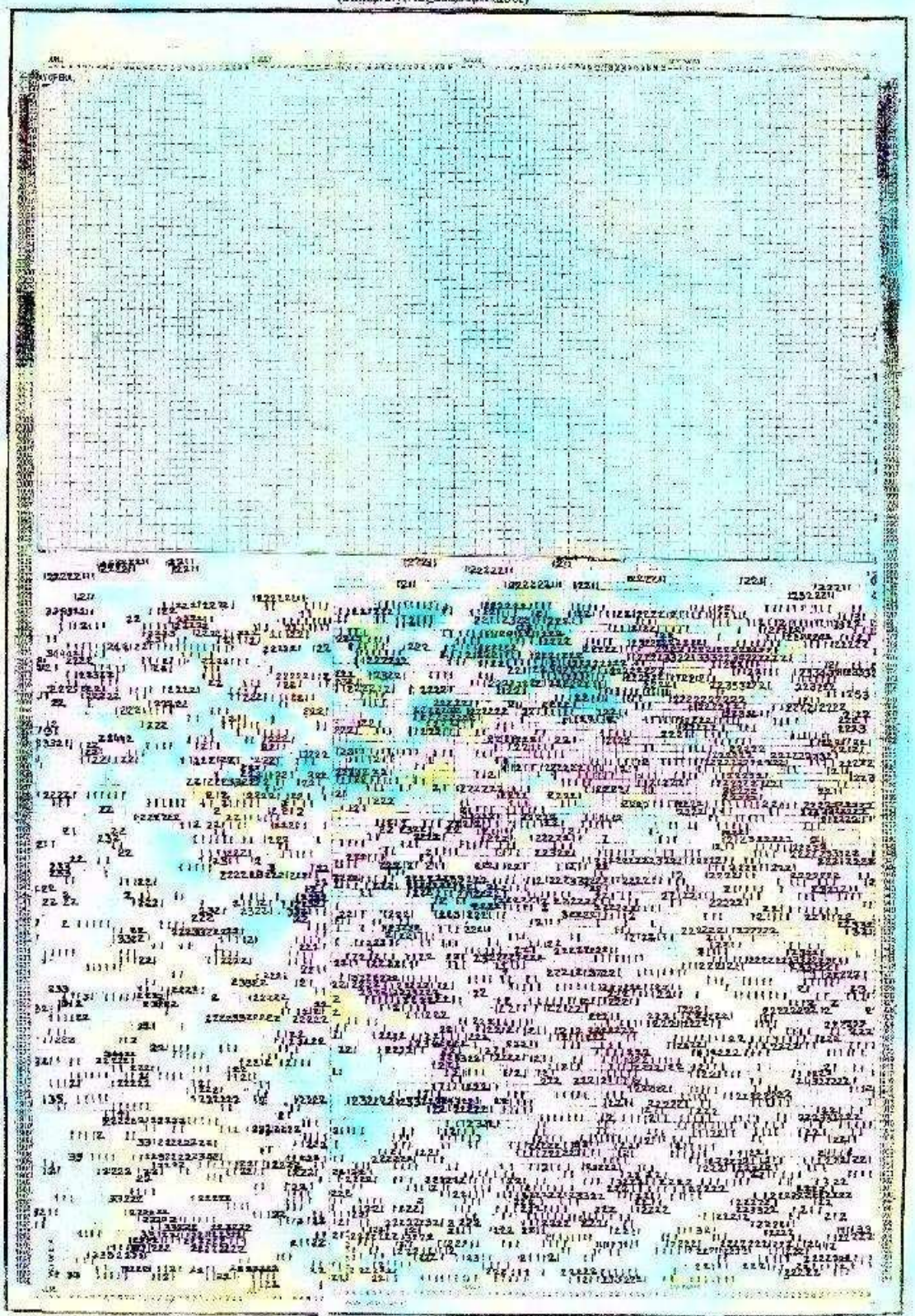
INDIAN MONSOON TIME SCALE

(June, July, August, September)



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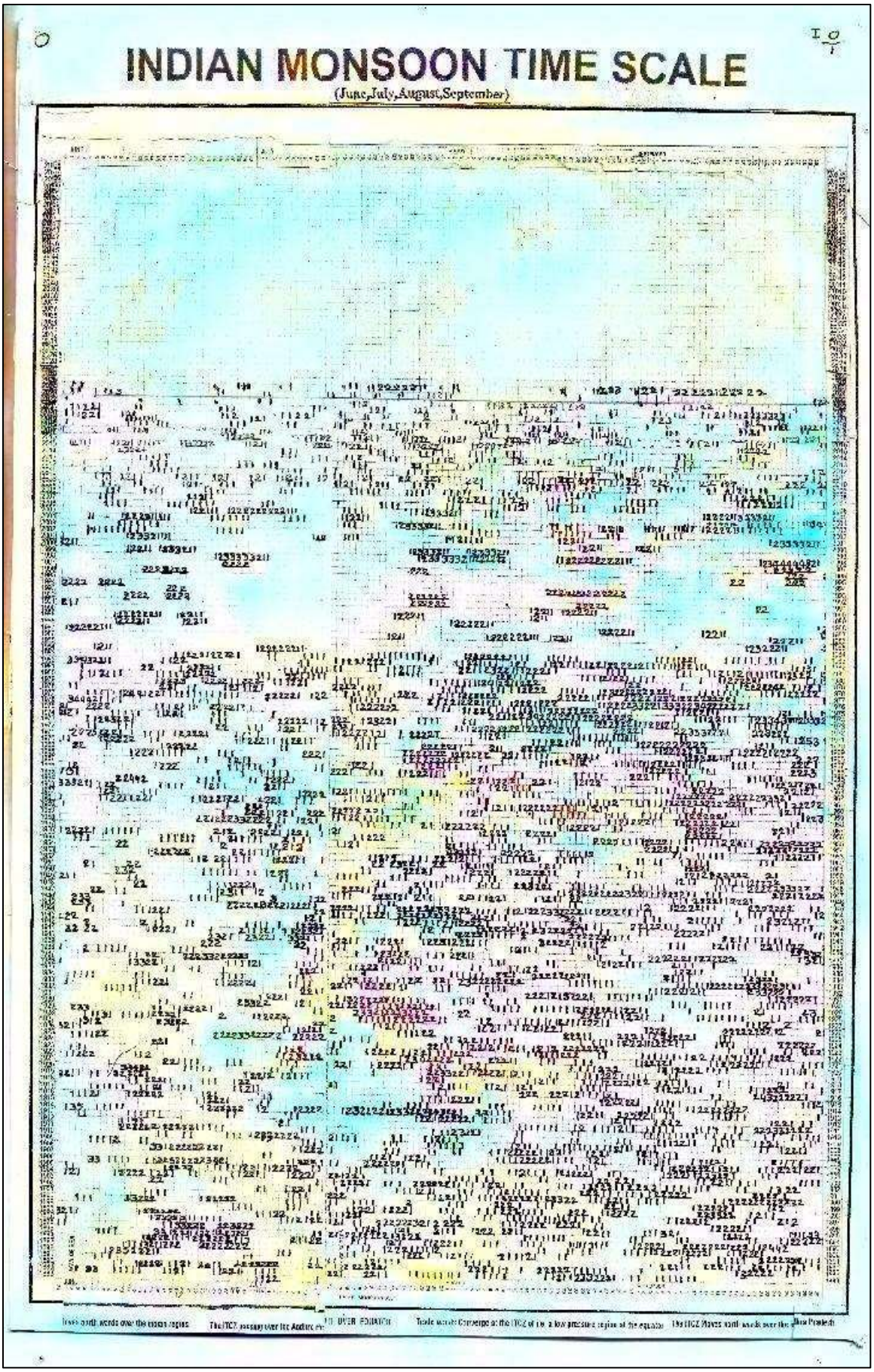
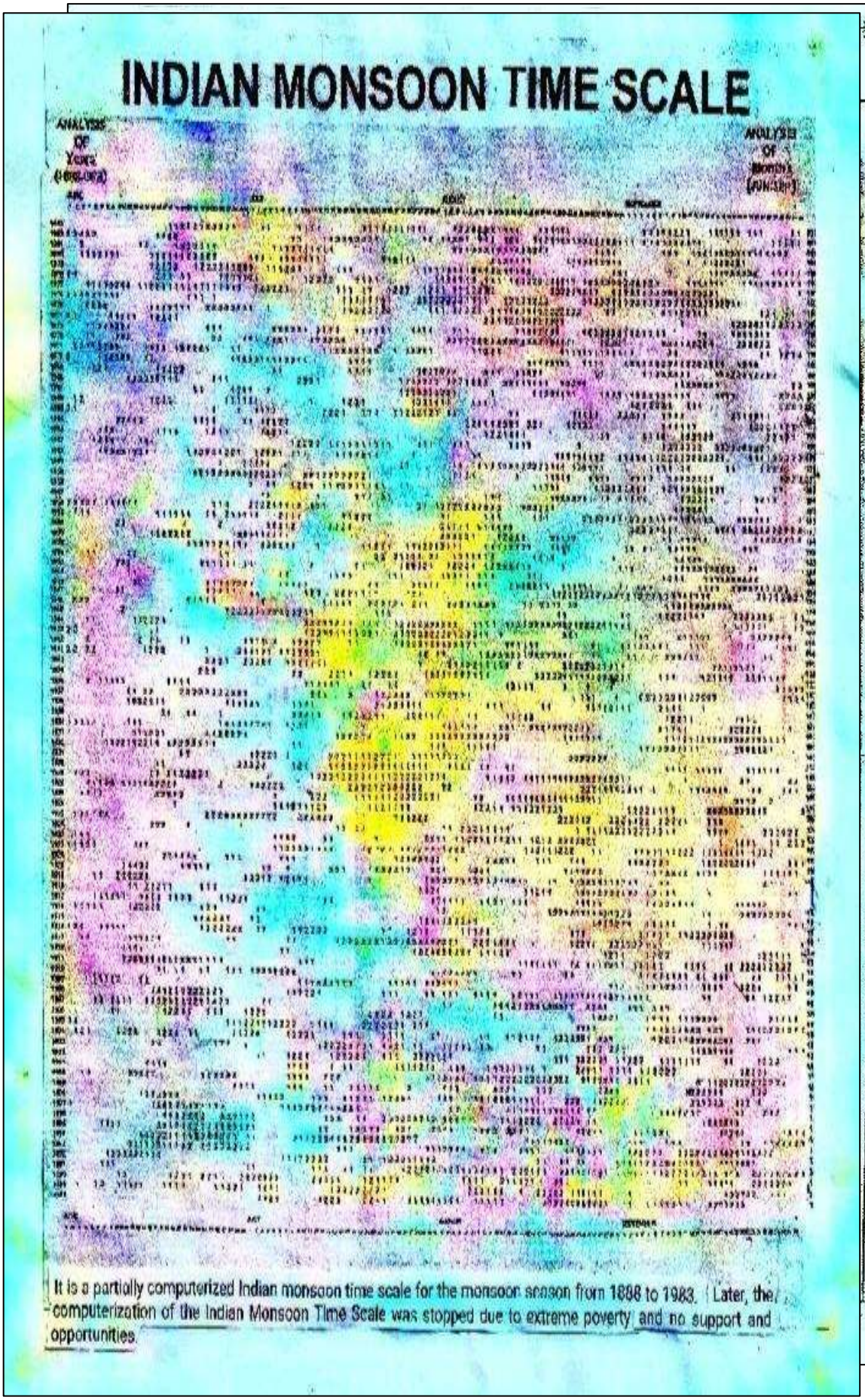

INDIAN MONSOON TIME SCALE
(June,July,August,September)



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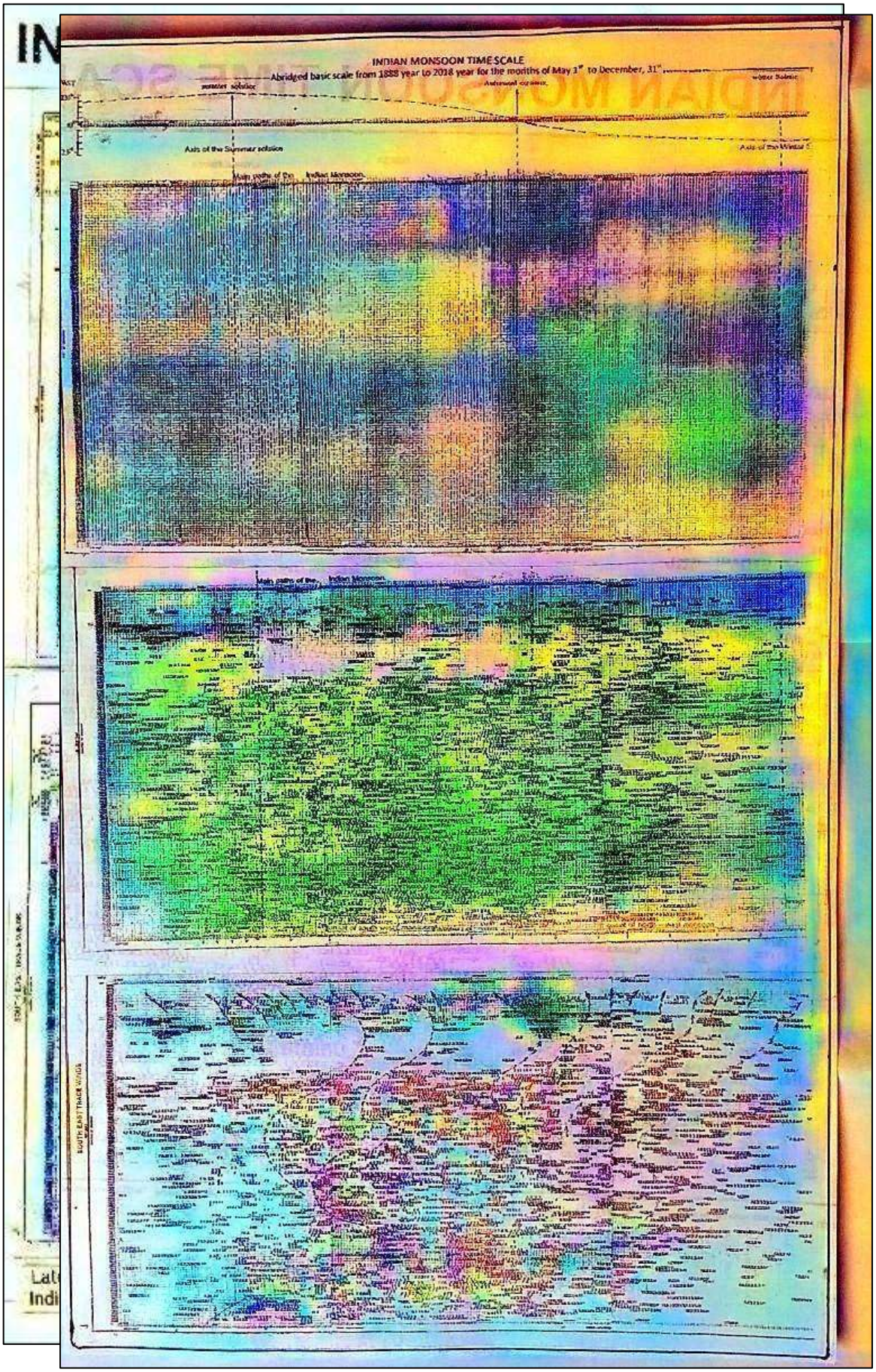
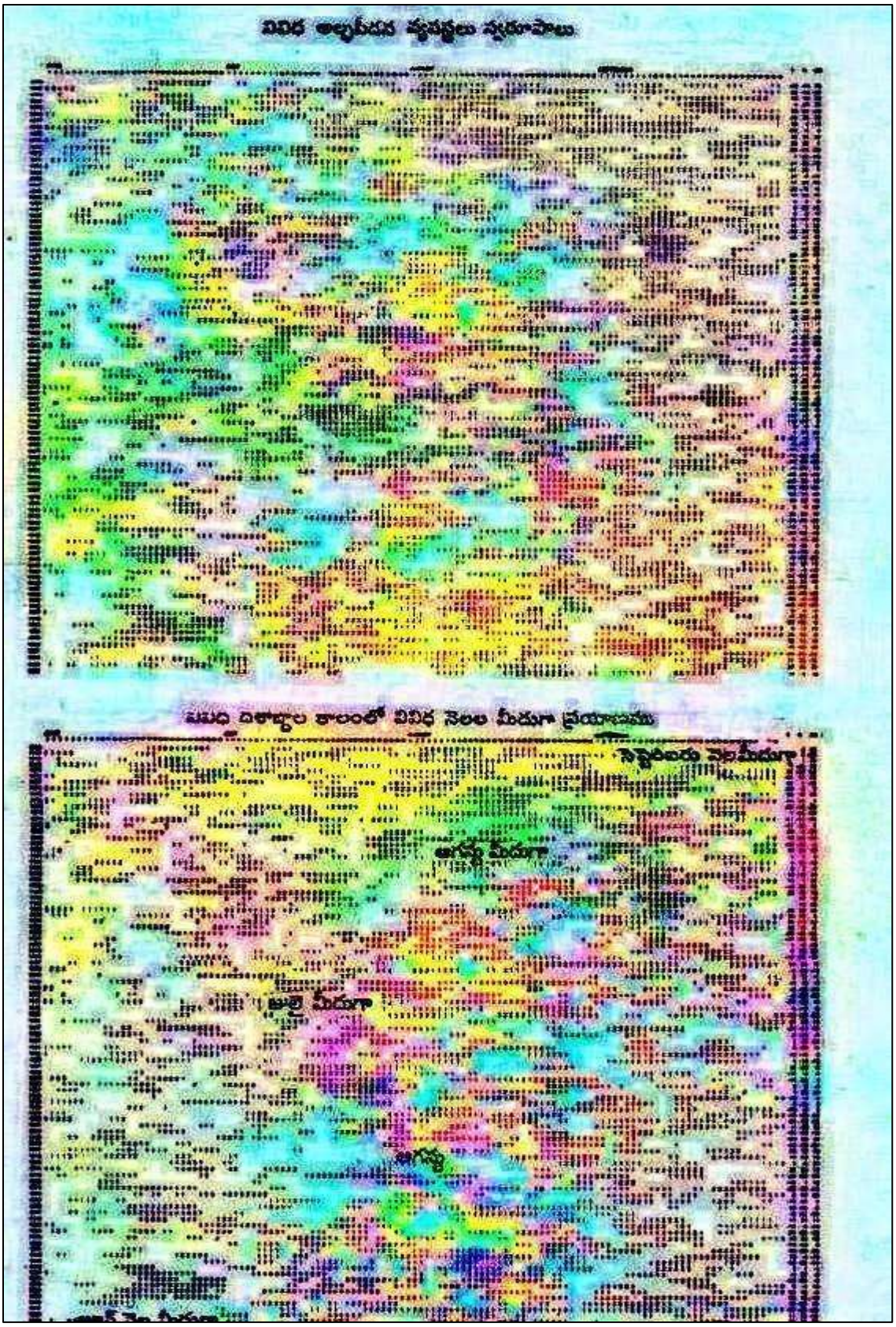
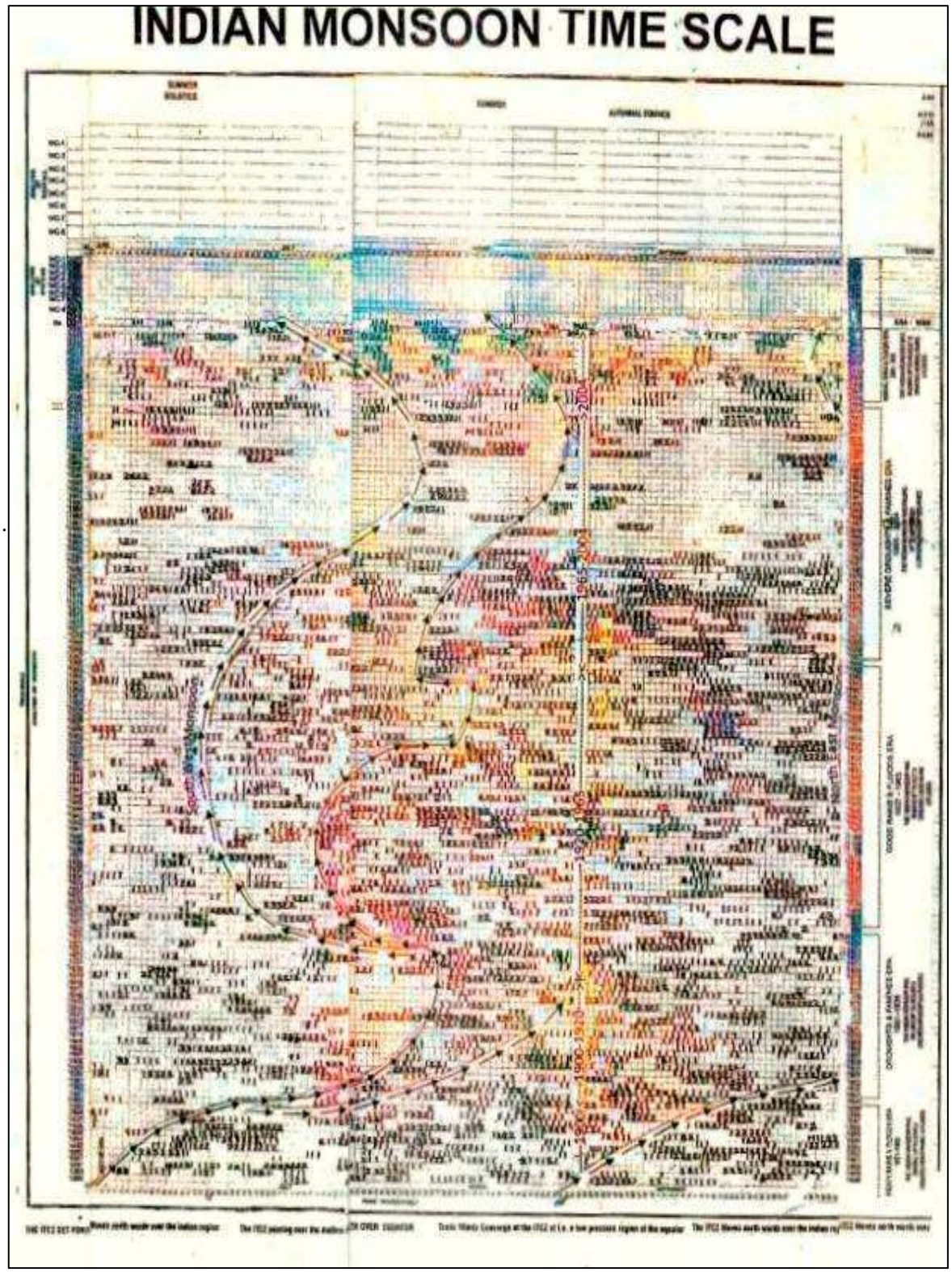
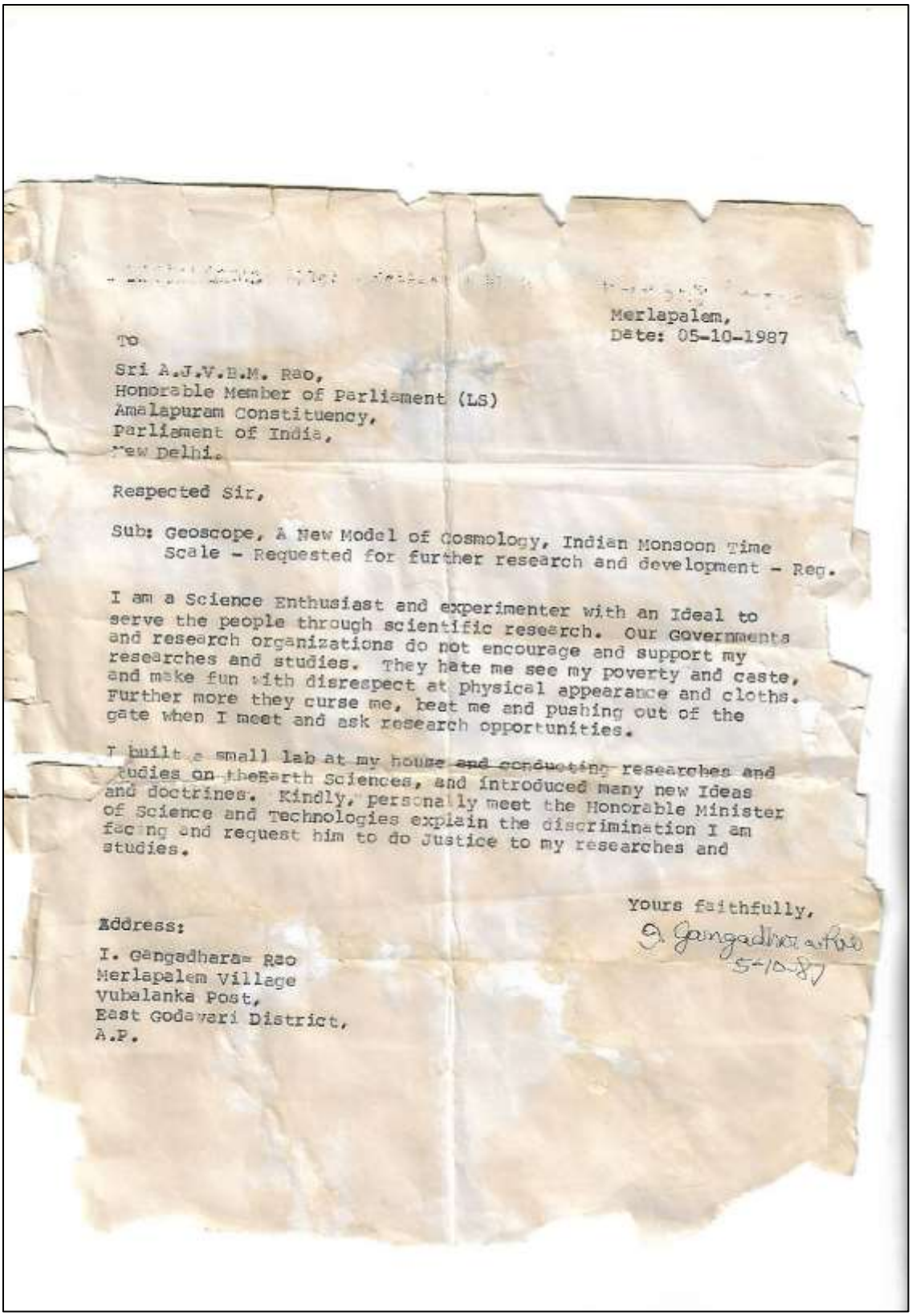

INDIAN MONSOON TIMESCALE
Abridged basic scale from 1888 year to 2018 year for the months of May 1st to December, 31st
Axis of the Summer solstice
Axis of the Winter S
Main paths of the Indian Monsoon
Main paths of the Indian Monsoon
SOUTH EAST TRADE WINDS




INDIAN MONSOON TIME SCALE
Abridged filled scale from 1888 year to 2018 year for the months of May 1st to December, 31st
Axis of the Summer solstice
Axis of the Winter
Main paths of the Indian Monsoon


SOUTH EAST TRADE WINDS
INDIAN MONSOON TIME SCALE
Abridged analysed scale from 1888 year to 2018 year for the months of May 1st to December, 31st


INDIAN MONSOON TIME SCALE



Merlapalem,
Date: 05-10-1987

To

Sri A.J.V.B.M. Rao,
Honorable Member of Parliament (LS)
Amalapuram Constituency,
Parliament of India,
New Delhi.

Respected Sir,

Sub: Geoscope, A New Model of Cosmology, Indian Monsoon Time Scale - Requested for further research and development - Reg.

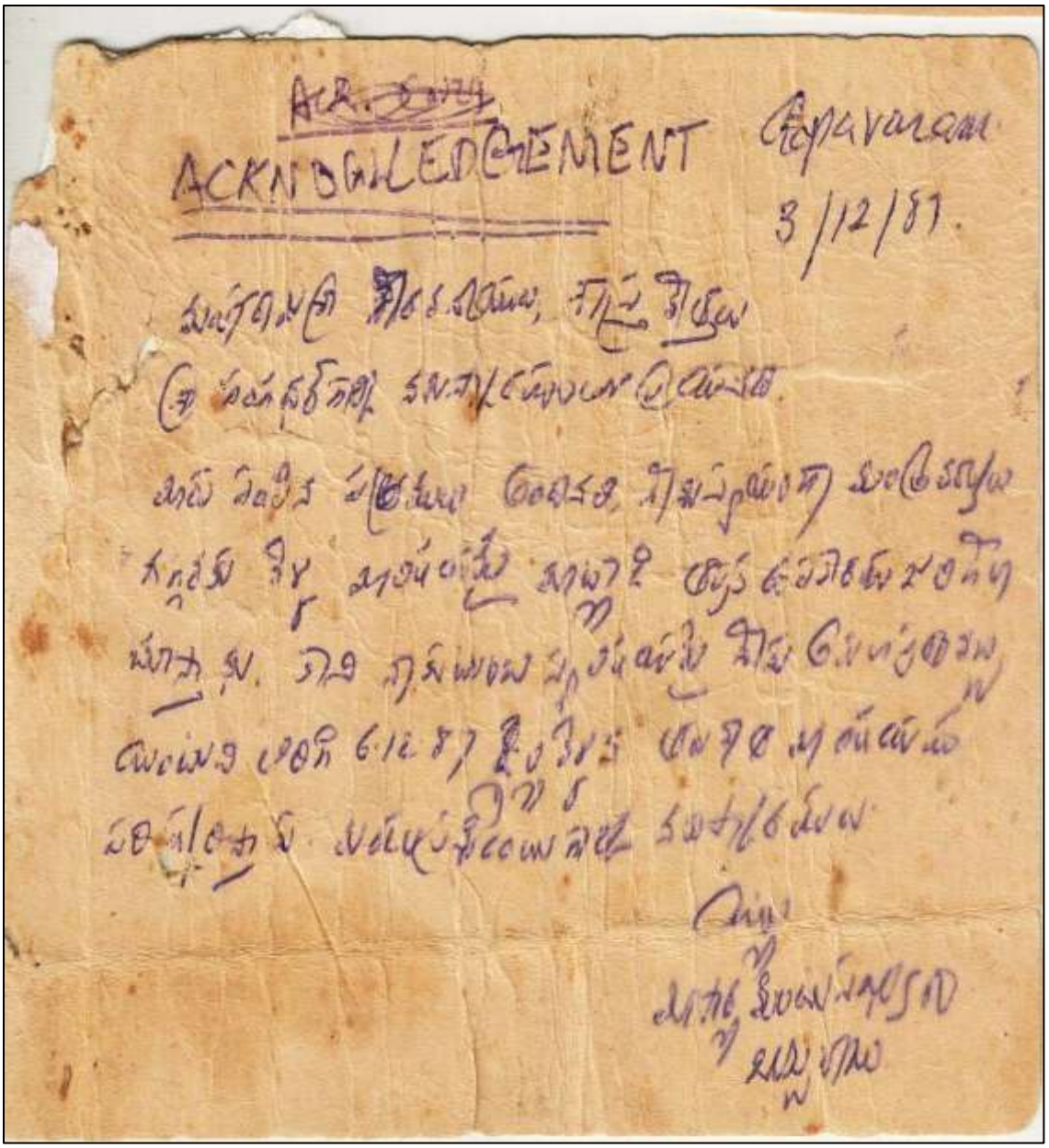
I am a Science Enthusiast and experimenter with an Ideal to serve the people through scientific research. Our Governments and research organizations do not encourage and support my researches and studies. They hate me see my poverty and caste, and make fun with disrespect at physical appearance and cloths. Further more they curse me, beat me and pushing out of the gate when I meet and ask research opportunities.

I built a small lab at my house and conducting researches and studies on theEarth Sciences, and introduced many new Ideas and doctrines. Kindly, personally meet the Honorable Minister of Science and Technologies explain the discrimination I am facing and request him to do Justice to my researches and studies.

Yours faithfully,
G. Gangadhara Rao
5-10-87

Address:

I. Gangadhara Rao
Merlapalem Village
Vubalanka Post,
East Godavari District,
A.P.


ACKNOWLEDGEMENT

401

सत्यमेव जयते

राज्य मन्त्री
विज्ञान और प्रौद्योगिकी, परमाणु ऊर्जा,
अन्तरिक्ष, इलैक्ट्रोनिकी 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.

'Anusandhan Bhavan', Rafi Marg, New Delhi-110001

In the High Court of Judicature of Andhra Pradesh at Hyderabad.
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 Gangadhara 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 or direction declaring

i) that the inaction of the respondent authorities in not considering petitioner's representations for carring out 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 carryin out scientific investigations in respondent 3 institution, or any such other appropriate 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.C. 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 ~~xxxxxxxxx~~ representations submitted by the petitioner to ~~xxxx~~ provide facilities to enable him 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~~ it is directed that the respondents shall consider the representation dated 3-6-89 submitted by the petitioner and pass appropriate orders thereon as early as possible preferably within three months from the date of receipt of a copy of this order.

The writ petition is accordingly disposed of. No costs.

Sd/-S.H.Choudary
Asst.Registrar

//true copy//

Asst.Registrar

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.

From:
Gangadhara Rao Irlapati,
Merlapalem Village
Vubalanka Post - 532232,
Atryapuram, E.G.District,
Andhra Pradesh.

To

The Director of General of Meteorology,
India Meteorological Department
New Delhi.

Through : Shri G.M.C. Balayogi
Member of Parliament (LS)
Amalapuram.

Sir,

Sub: Global Monsoon Time-Scales - Indian Monsoon Time Scale - Requested for further research & Development - Reg.,

I am a poor Scientist with an ideal to serve the country research. I have built a small Lab at my house and conducting research on the Global Monsoon systems. As a part of this, I have Invented the Indian Monsoon Time Scale which can help to study the past, present and future movements of the Indian Monsoon.

I am request you that kindly accept my Indian Monsoon Time Scale and Develop in the services ofthe country.

Merlapalem
15-08-1995.

Yours faithfully,
G. Gangadhara Rao
15-8-91.

सं०
भारत सरकार
भारत मौसम विज्ञान विभाग
मौसम विज्ञान के महानिदेशक का कार्यालय
मौसम भवन, लोदी रोड
नई दिल्ली-११०००३
तार का पता :
महामौसम, नई दिल्ली

NO. NA-153
GOVERNMENT OF INDIA
INDIA METEOROLOGICAL DEPARTMENT
OFFICE OF THE
DIRECTOR GENERAL OF METEOROLOGY
MAUSAM BHAVAN, LODI ROAD,
NEW DELHI-110003
Telegraphic Address
DIRGENMET, NEW DELHI

दिनांक/Date Oct. 21 1991.

To

Shri Gangadhara Rao Irlapati,
Merlapalem Village,
Vubalanka Post 533237
Atryapuram, E.G. Distt.,
ANDHRA PRADESH

Sir,

Kindly refer to your letter dated 15.8.91 received through Shri G.M.C. Balayogi, M.P. regarding the invention of an instrument by you which can help to forecast cyclones, floods and earthquakes 18 days in advance. In order to examine your proposal further it is requested that you may kindly furnish the following details to this office:

(i) The scientific principles on which your instrument functions and the type of data obtained through it.

(ii) Method of analysis of data and the inference drawn from it to forecast cyclones, earthquakes and heavy rain claimed by you.

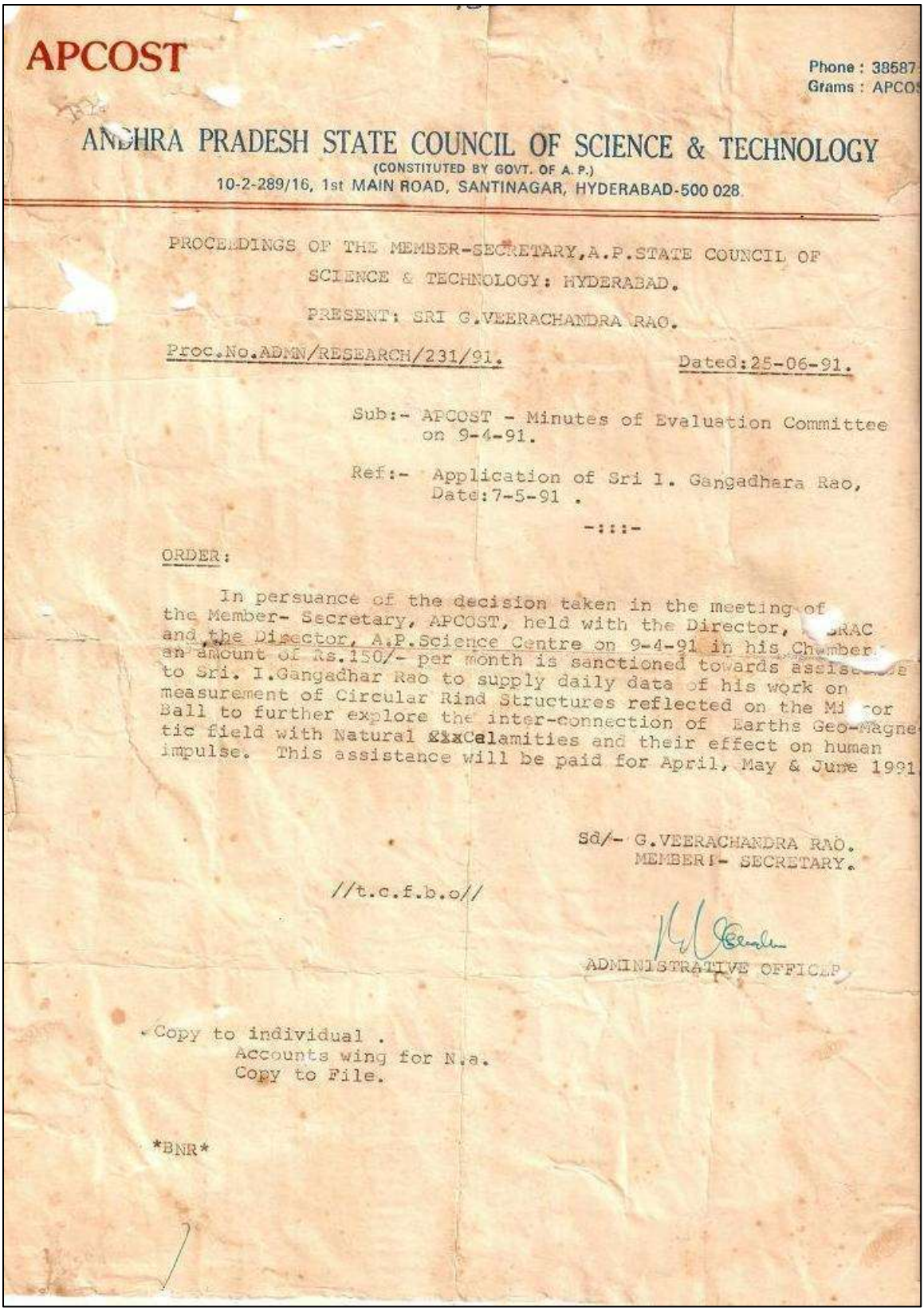
(iii) Specific samples of forecast on cyclones, earthquakes and heavy rain you claim to provide 18 days in advance.

(iv) Verification procedure with specific instances.

(v) ~~Specification~~ Scientific publication, if any, on your instrument. (Give detailed reference)

Yours faithfully,

(M.C. PANT) 17/10/91
Director
for Director General of Meteorology.



APCOST

Phone : 38587
Grams : APCOS

ANDHRA PRADESH STATE COUNCIL OF SCIENCE & TECHNOLOGY
(CONSTITUTED BY GOVT. OF A. P.)
10-2-289/16, 1st MAIN ROAD, SANTINAGAR, HYDERABAD-500 028.

PROCEEDINGS OF THE MEMBER-SECRETARY, A.P.STATE COUNCIL OF SCIENCE & TECHNOLOGY: HYDERABAD.

PRESENT: SRI G.VEERACHANDRA RAO.

Proc.No.ADMN/RESEARCH/231/91. Dated:25-06-91.

Sub:- APCOST - Minutes of Evaluation Committee on 9-4-91.

Ref:- Application of Sri I. Gangadhara Rao, Date:7-5-91 .

-:::-

ORDER:

In persuance of the decision taken in the meeting of the Member- Secretary, APCOST, held with the Director, [illegible]RAC and the Director, A.P.Science Centre on 9-4-91 in his Chamber an amount of Rs.150/- per month is sanctioned towards assis[illegible]e to Sri. I.Gangadhar Rao to supply daily data of his work on measurement of Circular Rind Structures reflected on the Mi[illegible]or Ball to further explore the inter-connection of Earths Geo-Magne tic field with Natural ~~&~~Calamities and their effect on human impulse. This assistance will be paid for April, May & June 1991.

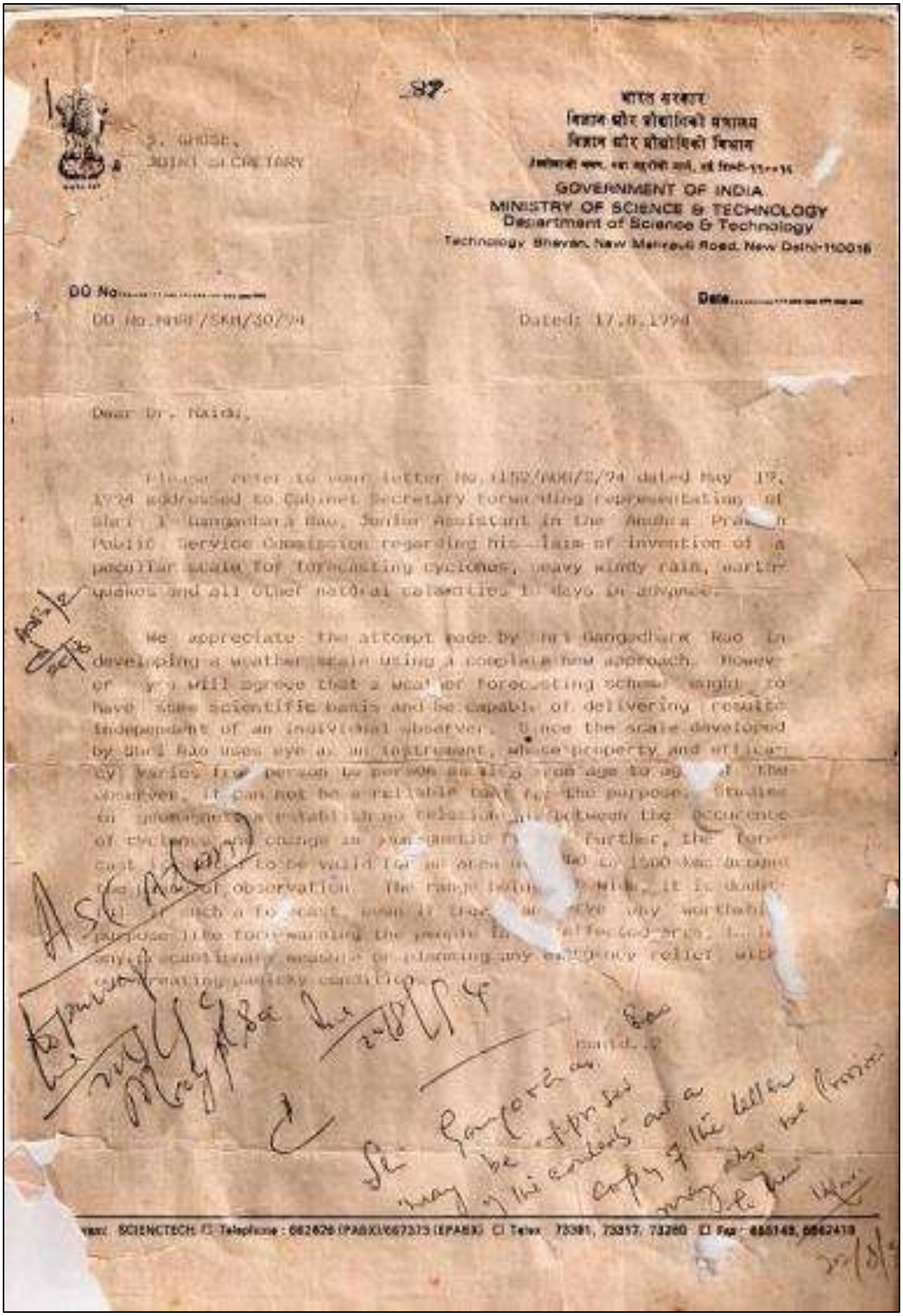
Sd/- G.VEERACHANDRA RAO.
MEMBER I- SECRETARY.

//t.c.f.b.o//

ADMINISTRATIVE OFFICER

Copy to individual .
Accounts wing for N.a.
Copy to File.

BNR



S. GHOSE,
JOINT SECRETARY

भारत सरकार
विज्ञान और प्रौद्योगिकी मंत्रालय
विज्ञान और प्रौद्योगिकी विभाग
टेक्नोलॉजी भवन, नया महरौली मार्ग, नई दिल्ली-110016

GOVERNMENT OF INDIA
MINISTRY OF SCIENCE & TECHNOLOGY
Department of Science & Technology
Technology Bhavan, New Mehrauli Road, New Delhi-110016

DO No. DO No.NHRF/SKH/30/94

Date Dated: 17.8.1994

Dear Dr. Naidu,

Please refer to your letter No.1152/AAH/S/94 dated May 17, 1994 addressed to Cabinet Secretary forwarding representation of Shri T. Gangadhara Rao, Junior Assistant in the Andhra Pradesh Public Service Commission regarding his claim of invention of a peculiar scale for forecasting cyclones, heavy windy rain, earthquakes and all other natural calamities 1[illegible] days in advance.

We appreciate the attempt made by Shri Gangadhara Rao in developing a weather scale using a complete new approach. However, you will agree that a weather forecasting scheme ought to have some scientific basis and be capable of delivering results independent of an individual observer. Since the scale developed by Shri Rao uses eye as an instrument, whose property and efficacy varies from person to person as also from age to age of the observer, it can not be a reliable tool for the purpose. Studies on [illegible] establishing relationship between the occurence of cyclones and change in [illegible] [illegible]. Further, the forecast [illegible] to be valid for an area [illegible] to 1500 km around the place of observation. The range being so wide, it is doubtful if such a forecast, even if true, will serve any worthwhile purpose like forewarning the people in the affected area, [illegible] any precautionary measure or planning any emergency relief without creating panicky condition.

[illegible]

Yours sincerely,

Gram: SCIENCTECH ☐ Telephone: 662626 (PABX)/667373 (EPABX) ☐ Telex: 73381, 73317, 73280 ☐ Fax: 686140, 6862419

-53-

No. F-12016/1/00-NA/100

भारत सरकार
भारत मौसम विज्ञान विभाग
मौसम विज्ञान के महानिदेशक का कार्यालय
मौसम भवन, लोदी रोड, नई दिल्ली-110003
तार का पताः महामौसम, नई दिल्ली
दूरभाषः 24611068, 24631913

GOVERNMENT OF INDIA
INDIA METEOROLOGICAL DEPARTMENT
OFFICE OF THE
DIRECTOR GENERAL OF METEOROLOGY
MAUSAM BHAWAN, LODI ROAD, NEW DELHI-110003
Telegraphic Address: DIRGENMET, NEW DELHI
Tel. No. 24611068/ 24631913, Fax No. 24643128,

November, 2009.
1 December

Shri Gangadhara Rao Irlapati
A.S.O., A.P.P.S.C., Nampally,
Beside Gandhi Bhawan,
Hyderabad – 500 001, A.P.

Subject:- "Indian Weather Time Scale" – regarding.

Sir,

With reference to your letter addressed to Secretary, Ministry of Earth Sciences, regarding forecast relating to prediction of cyclone, monsoon, heavy rainfall etc., you may kindly refer this office letter No. O-49106/537 dated 25/26.7.2005.

However, your dedication and interest in the field of meteorology is highly appreciated.

Thanking you,

Yours faithfully,

T Kumar 1.12.09
(Awadhesh Kumar)
Scientist 'E'
for Director General of Meteorology

-95-

अर्जा श्रीकांत, आई.आर.टी.एस.
ARJA SRI KANTH, IRTS
Tel. : 23387250
Fax : 23389025
सत्यमेव जयते

निजी सचिव
खान राज्य मंत्री
भारत सरकार
शास्त्री भवन, नई दिल्ली-110 001
PRIVATE SECRETARY TO
MINISTER OF STATE FOR MINES
GOVERNMENT OF INDIA
SHASTRI BHAWAN, NEW DELHI 110 001

24 March 2008

Dear Sh. Ajit Tyagi Ji

Dr.T.Subbarami Reddy, Hon'ble Union Minister of State for Mines directed me to forward a representation received from Sh. I Gangadhara Rao, Hyderabad requesting for considering his proposal of Indian Weather Time Scale. The merits of the proposal may be examined.

A line of action taken may be communicated to apprise Hon'ble Union Minister.

With regards,

Yours sincerely,

(Arja Srikanth)

AVM Ajit Tyagi
Director General of Meteorology,
India Meteorological Department,
Mausam Bhavan, Lodi Road,
New Delhi
Fax:011-24699216

Copy to Sh.I.Gangadhara Rao, Asst Section Officer, AP Public Service Commission, Nampally, Hyderabad 500055.