

**South American Monsoon Time Scale
(Basics of the South American Monsoon Time Scale)**

Gangadhara Rao Irlapati

H.No.5-30-4/1, Saibaba Nagar, Jeedimetla, Hyderabad, Telanagana State, India-500055.

Email:- scientistgangadhar@gmail.com

Abstract: The South American Monsoon is a part of monsoon system of the America it plays an important role in distribution and duration of the rainy season manually over the South Western Amazonia, and the central west and southeast Brazil region, affecting the economy through impacts on the agriculture and hydrology sectors. Over several areas of the monsoon region there is a quick increase of precipitation during the months of spring (SON) and a reduction on March and April. The months of austral summer (December, January, February) is the rainy season in the areas with maximum observed precipitation. The monsoon onset and duration affect several economic and social activities, as agriculture planning and management of hydrological resources.

[Gangadhara Rao Irlapati. **South American Monsoon Time Scale** (Basics of the South American Monsoon Time Scale). *Academ Arena* 2016;8(5s): 47-69]. (ISSN 1553-992X). <http://www.sciencepub.net/academia>. 3. doi:[10.7537/marsaaj0805s1603](https://doi.org/10.7537/marsaaj0805s1603).

Key Words: South American Monsoon, Indian monsoon Time Scale, Chronological sequence, Main path of the Indian Monsoon Astrogeophysical/Astrometeorological Phenomena.

Introduction:

The South American Monsoon Time Scale is 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 the South American Monsoon and its relationship with rainfall and other weather problems and natural calamities.

Preparation Of The Scale:

Prepare the South American Monsoon Time Scale having 365 horizontal days from March 21st to next year March 20th (or 1st April to next year March 31st or according to convenience) for a required period comprising of a large time and weather have been taken and framed into a Square graphic scale, or 2, or 4 parts later the parts may be combined with pasting.

Data Required For The Scale:

The main Weather events of the monsoon season if any pertaining to the monsoon season may be taken to formulating the South American Monsoon time Scale.

Performance Of The Scale:

Prepare the South American Monsoon Time Scale having 365 horizontal days from March 21st to next year March 20th (or 1st April to Next Year March 31st or according to convince) for a required period comprising of a Large time and weather have been taken and framed into a square graphic Scale. The Scale may be prepared either in a single from, or 2, or 4 parts later the parts should be combined with pasting. The main weather events if any pertaining to

the monsoon season of the region have been entering on the scale as per the date and month of the each and every year. If we have been managing the South American Monsoon Time Scale in this manner continuously we can study the past, present and future movements of the South American Monsoon and its relationship with weather problems and Natural calamities of the monsoon.

Sample Model Scale:

For example, I have prepared the monsoon time scale for India by preparing the scale having 365 horizontal days from 1st April to next year March 31st of 128 years from 1888 to 2016 of 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' present's and future's of the India Monsoon and its relationship with rainfall and other weather problems & natural calamities in India.

Analysis:

The India Monsoon Time Scale reveals many secrets of the Indian monsoon and 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-edged paths passing through its systematic zigzag cycles in ascending and descending orders which causes heavy rains & floods in some years and droughts & famines in another years according to their travel. 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.

Measuring Of The Monsoon:

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 raising over 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, September 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 $23\frac{1}{2}$ 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 direct and converging rays of the summer sun on the India Sub-Continent and develops into the monsoon trough and maintain monsoon circulation.

Physical Appearance:

It is came to known in my researches that the South American Monsoon has a special physical appearance just as the Indian Monsoon.

Measures Of The European Monsoon:

It is came to known in my researches that the South American Monsoon having some peculiar measures just as identified in the Indian Monsoon.

Conclusions:

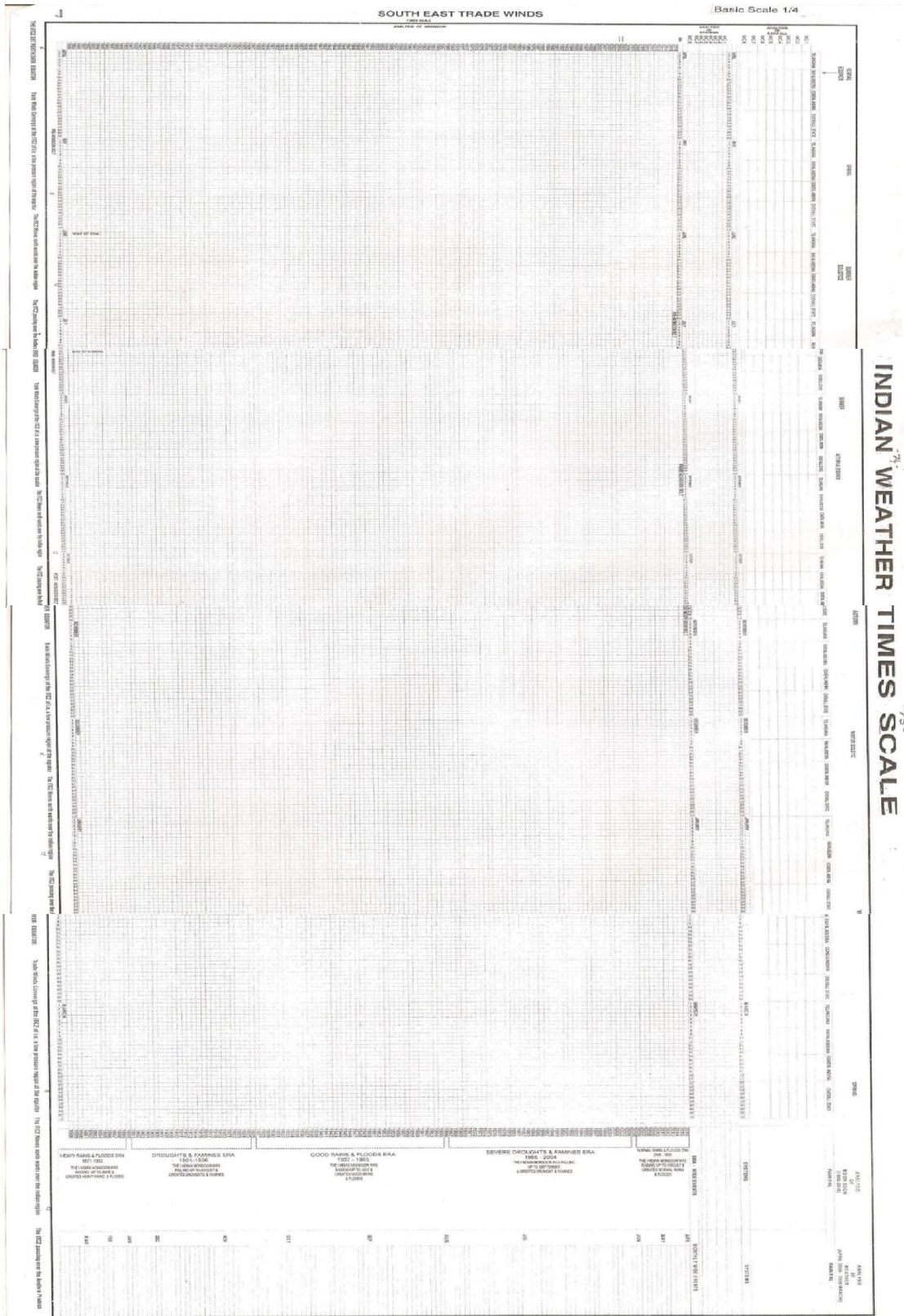
The world Scientist hereby requested to continue the further researches on the South American Monsoon Time Scale and find out the mysteries of the South American Monsoon. we can make many more modifications thus bringing many more developments in the South American Monsoon Time Scale.

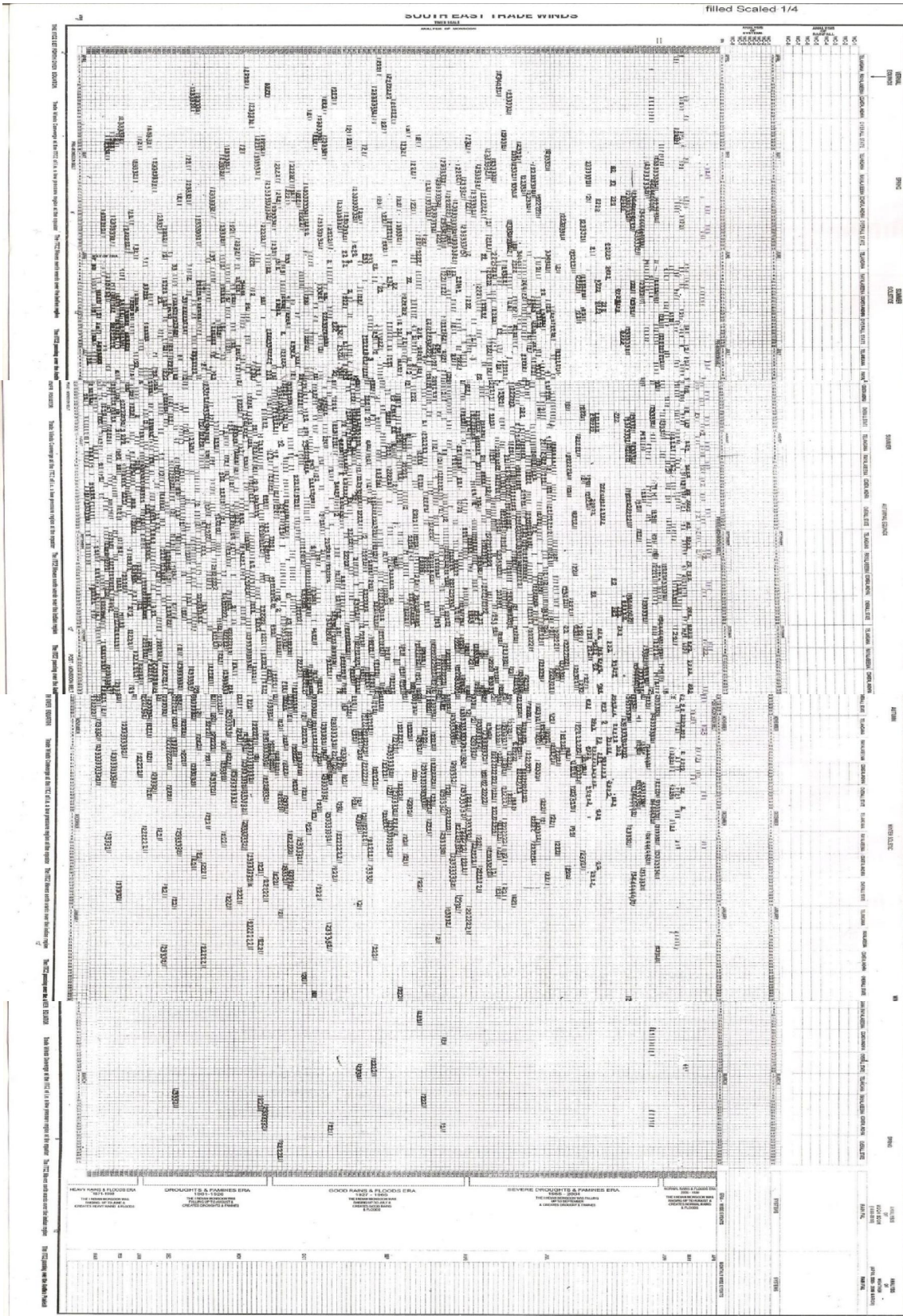
References:

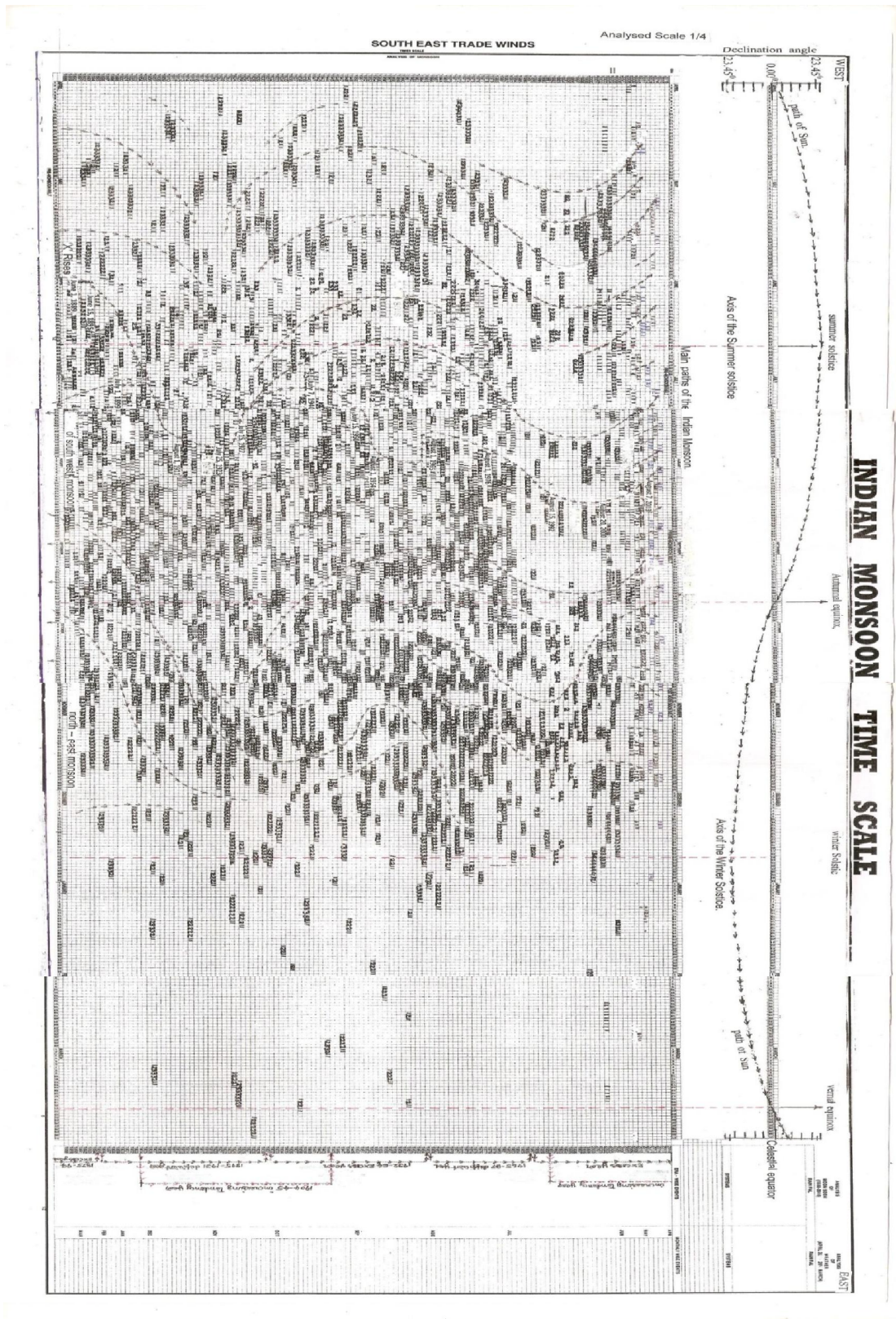
1. Mooley DA. Shukla J(1987); Characteristics of the west ward-moving summer monsoon low pressure systems over the Indian region and their relationship with the monsoon rainfall. Centre for ocean-land atmospheric interactions, university of Maryland, college park, MD.
2. All India monthly and seasonal rainfall series, 1871-1993, B. Parthasarathy, A. A. Munot, D.R. Kothawale, Theoretical and applied climatology, 1994, Springer.
3. Das P.K. and B.L. Bose, 1958, Numerical study of movement of monsoon depression, Ind. journal of meteor. Geophysics.
4. Analysis of variability and trends of extreme rainfall events over India using 104 years of gridded daily rainfall data, M. Rajeevan, J. Bhate, A.K. Jaswal, Geophysical Research letters, 2008, online library.
5. Jadhav, S.K. and A.A. Munot, 2004; statistical study of the low pressure systems during summer monsoon season over the Indian region, mausam, 55,15-30.
6. Clustering of low pressure system during the Indian summer monsoon by intra seasonal oscillations, bn.goswami, rs. ajaya mohan, prince Xavier, and d. sengupta, centre for atmospheric and oceanic studies, Indian institute of science, bangalore, India.
7. Composite structure of monsoon low pressure system and its relation to Indian rainfall, v. Krishna murthy and rs. Ajaya mohan, 2010, j. climate, 23,4285-4305
8. Indian monsoon university of st Andrews www.andrews.ac.uk/dibz/asia/monsoon/html.
9. Indian monsoon /meteorology/Britannica/.com www.britannica.com/science/Indian_monsoon.

10. The global monsoon system: research and forecast; caos.iisc.in/faculty/bng/iwm-iii-bng-overview.
11. Climate prediction centre-global monsoon; www.cpc.ncep.noaa.gov, climate.weather.
12. The global monsoon system, www.wcpr-climate.org/documents/monsoon-factsheet.
13. All India monthly and seasonal rainfall series, 1871-1993, b.parthasarathy, a.a.mount, Dr. kothawale, theoretical and applied climatology, 1994, Springer.
14. Parthasarathy .b, mount. aa, kothawale.dr, monthly and seasonal rainfall series for all India homogeneous regions and meteorological subdivisions, 1871-1994, research report, iitm Pune.
15. Longest instrumental rainfall series of the Indian regions(1813-2006), Indian institute of tropical meteorology, Pune.
16. All Indian data series-(imd) Pune.
17. Monthly rainfall data series-ministry of earth sciences, moes.gov.in/.
18. 114 years rainfall in India-interactive, India environmentportal.org.in/rainfall in India.
19. Education national geography.org/encyclopedia/monsoon.
20. Phoenix about.com/od/weather/a/monsoon-trivia/htm.
21. In.wikipedia.org/wiki/monsoon.
22. www.wcpr-climate.org/documents/monsoon-factsheet.
23. The Global Monsoon system: Research and forecast (Report of the India National Committee of third International workshop on Monsoon (IWM-III)) 2-6 Nov-2004, Hangzhou, China Report No.70.

Appendices:

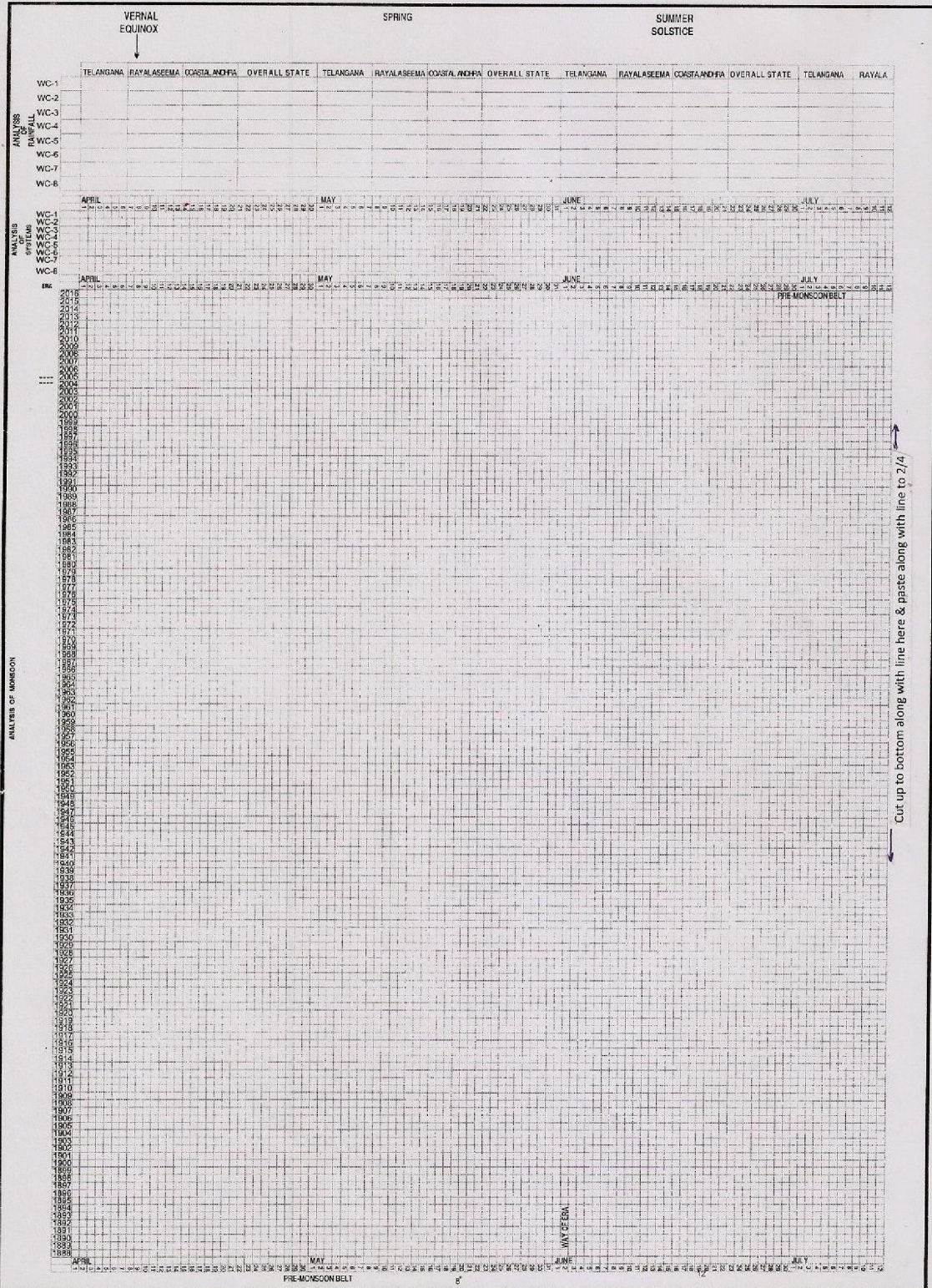






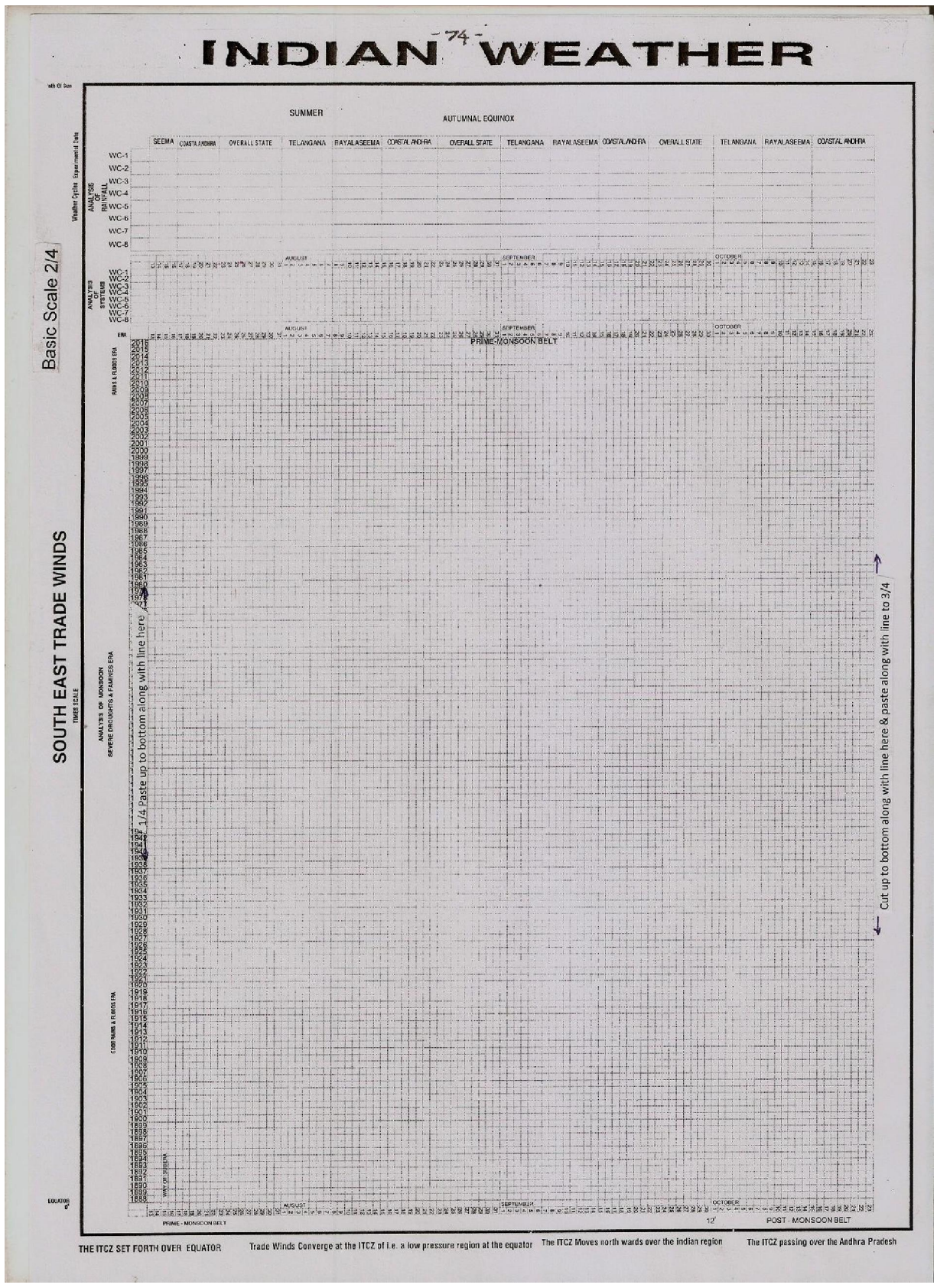
Basic Scale 1/4

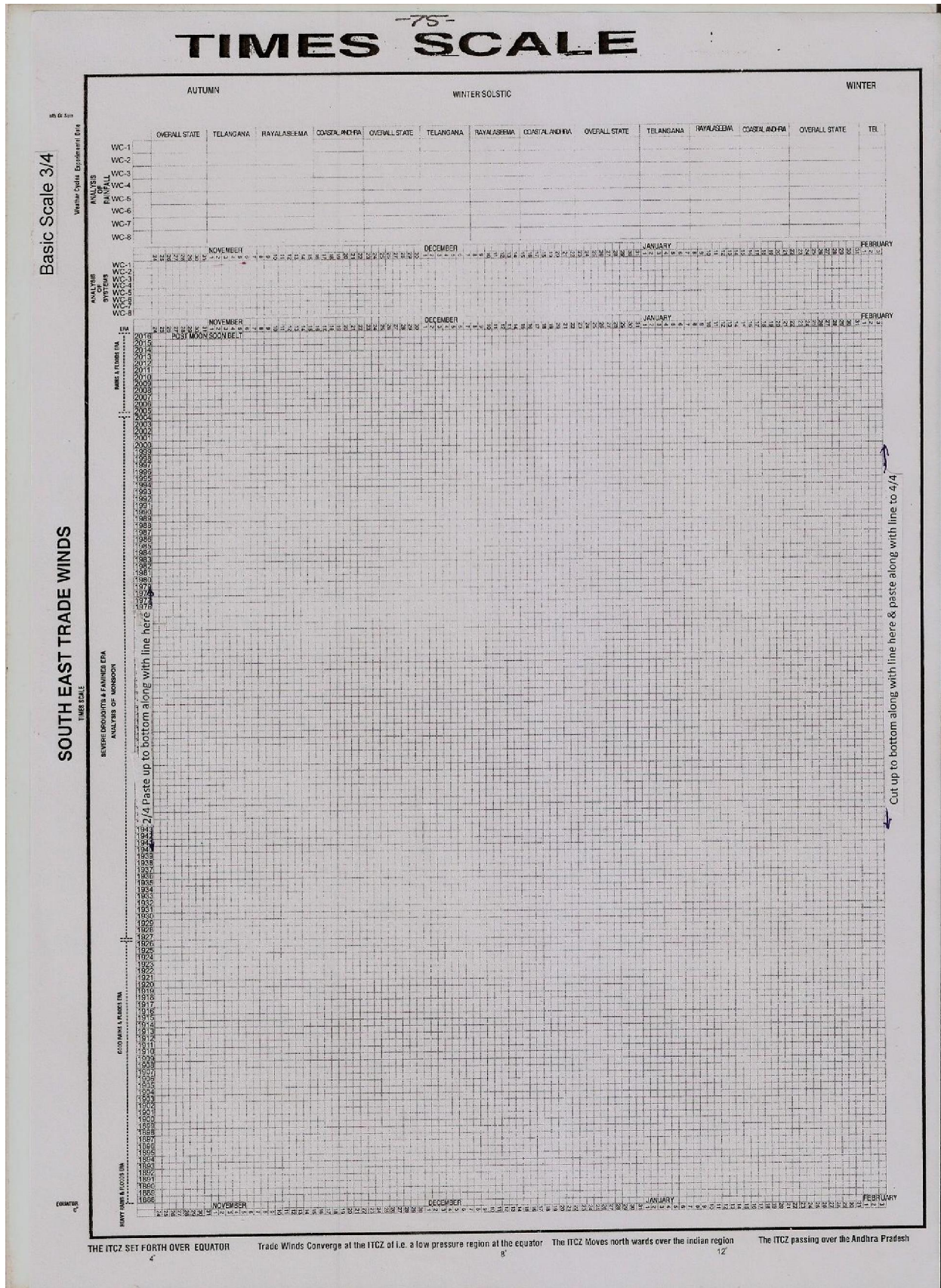
SOUTH EAST TRADE WINDS

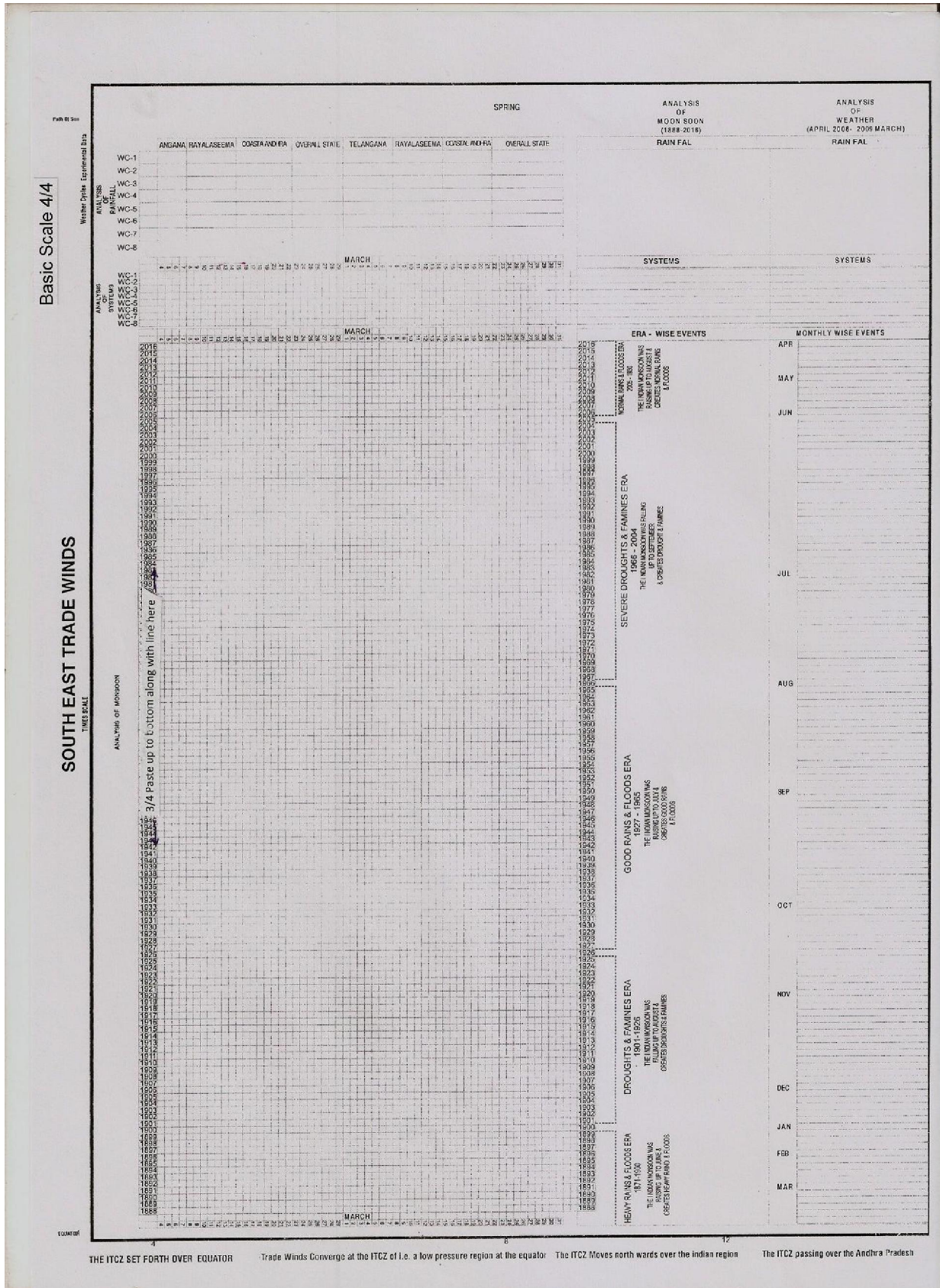


Cut up to bottom along with line here & paste along with line to 2/4

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

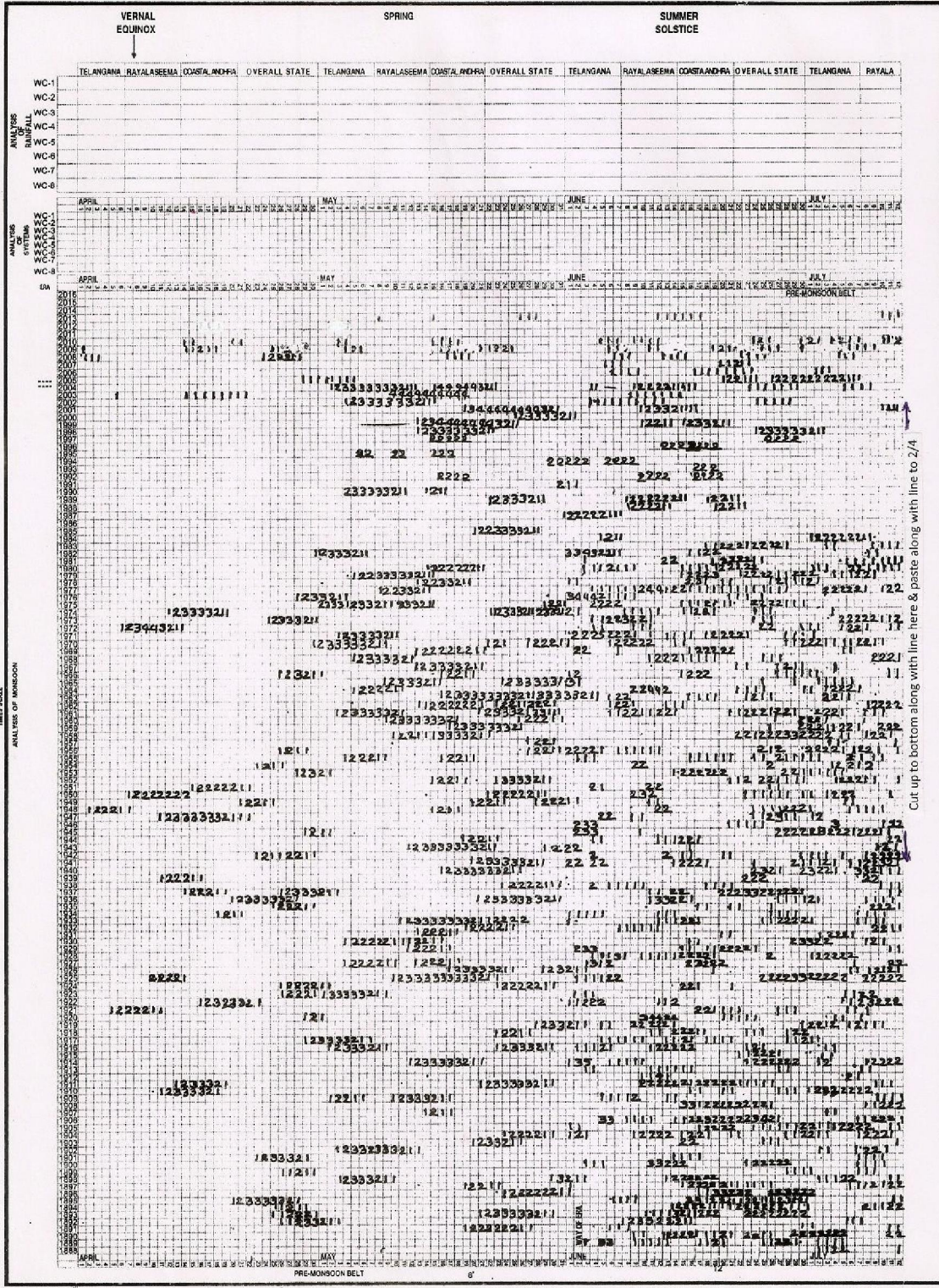






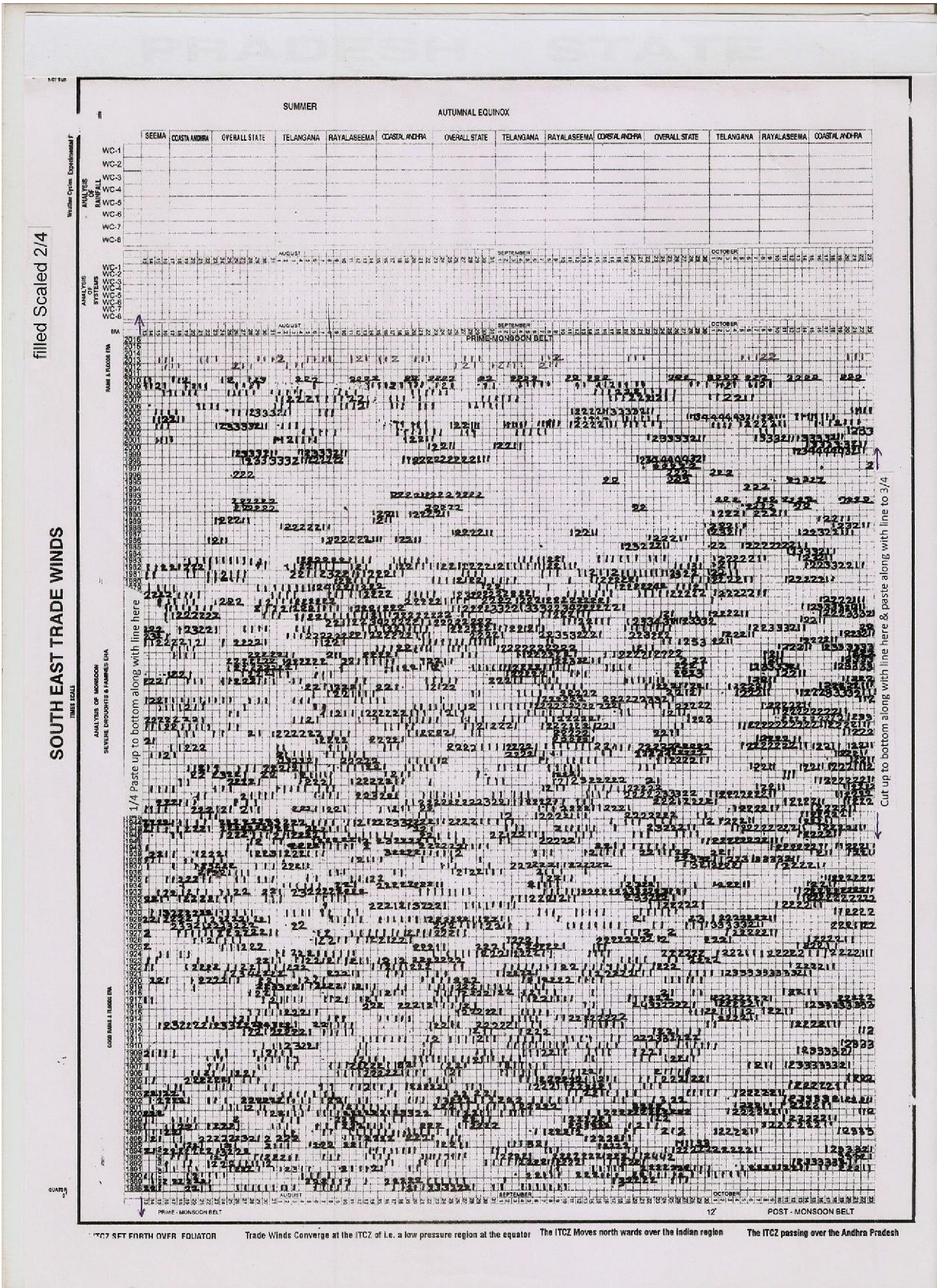
filled Scaled 1/4

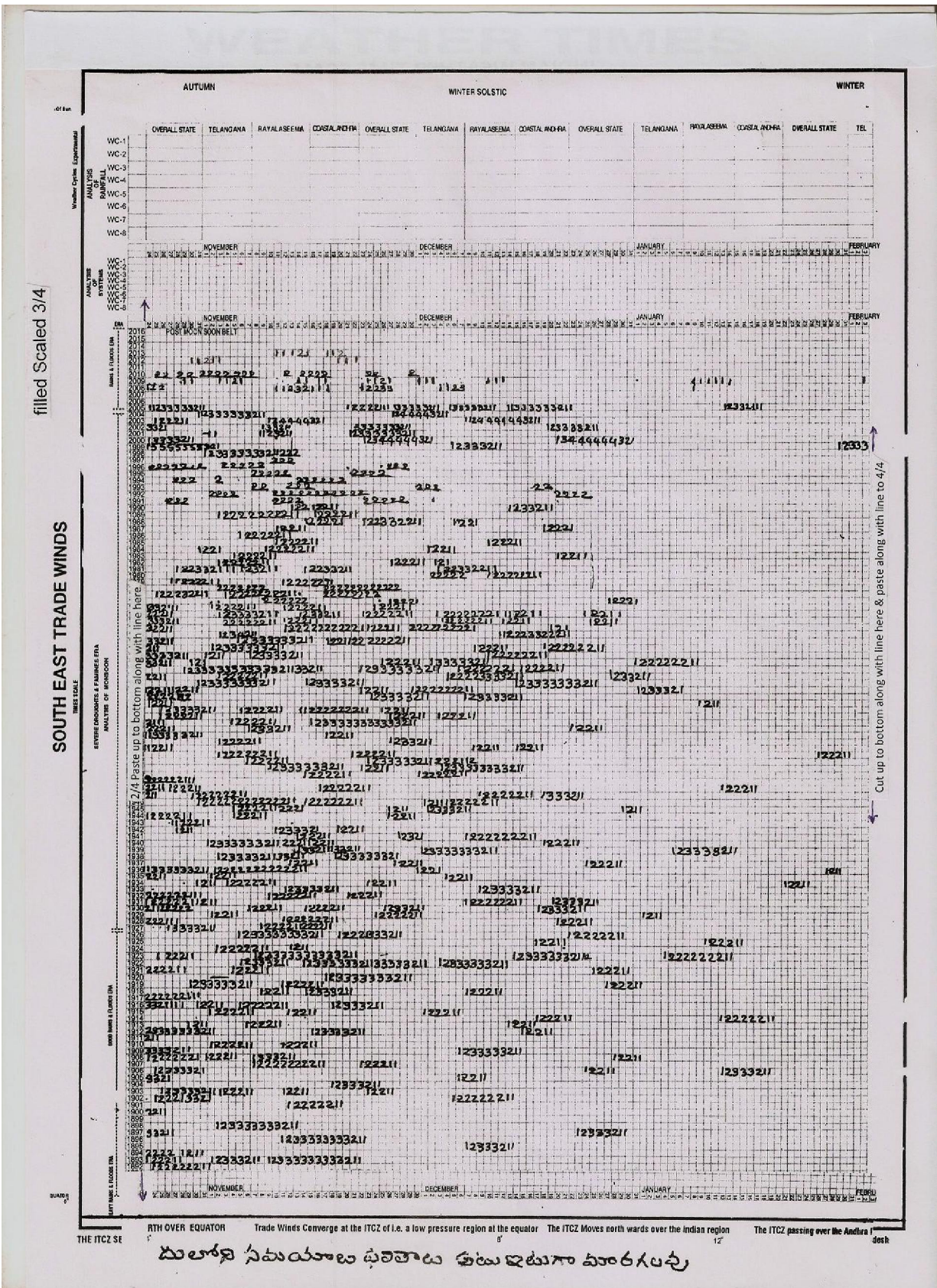
SUDDEN ASYMETRIC TRADE WINDS

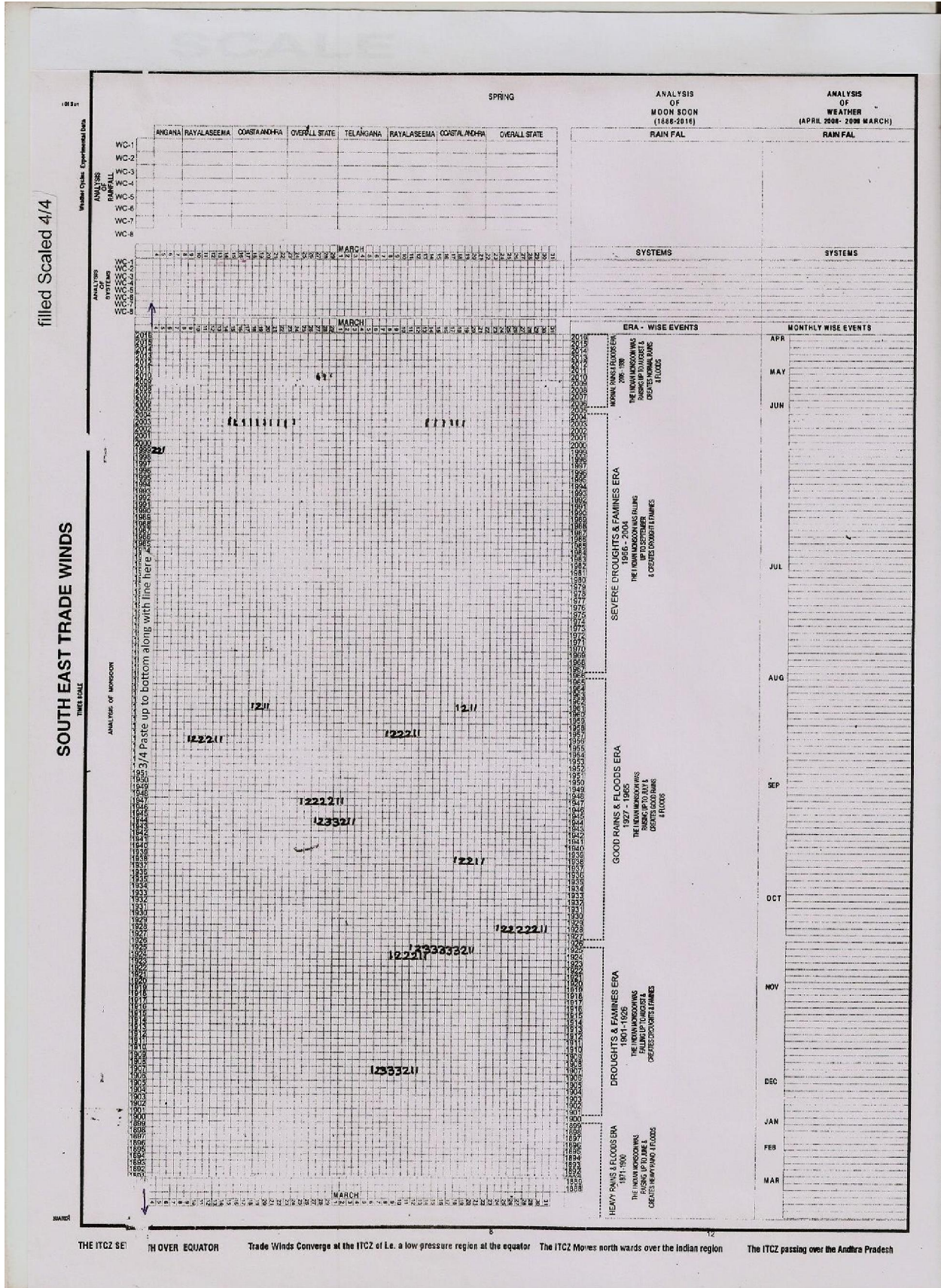


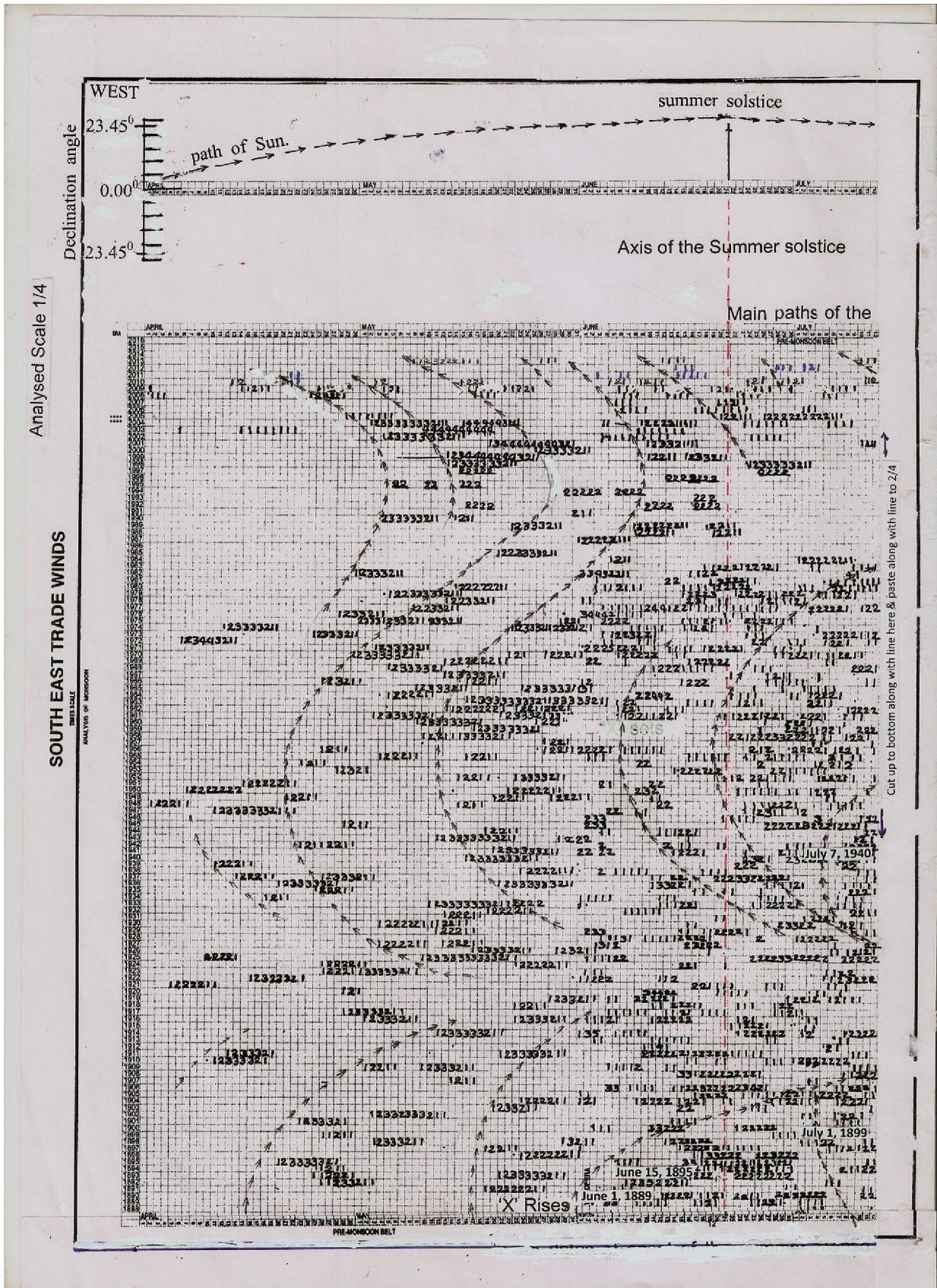
Cut up bottom along with line here & paste along with line to 2/4

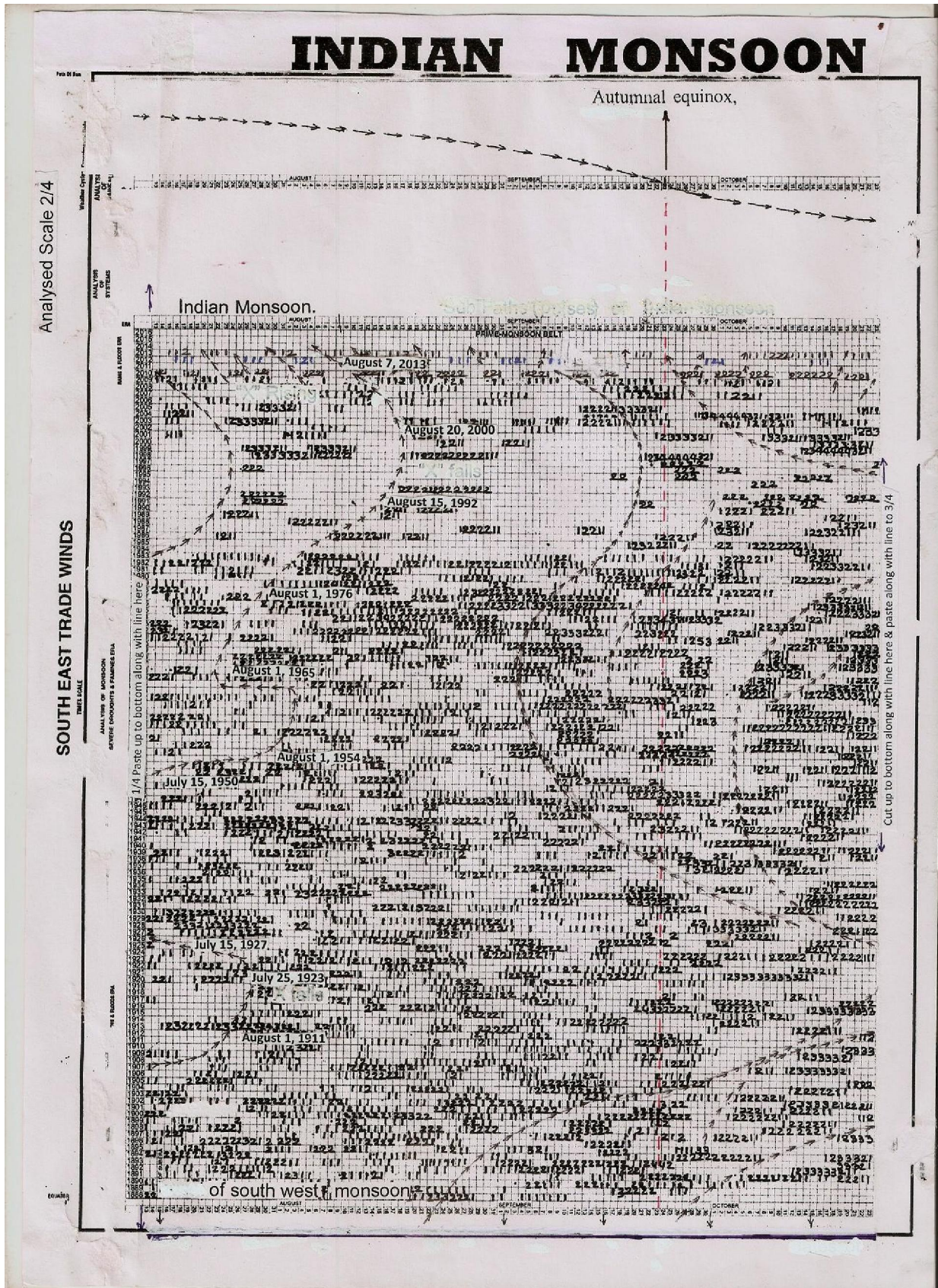
THE ITCZ SET FORTH OVER EQUATOR Trade Winds Converge at the ITCZ of i.e. a low pressure region at the equator The ITCZ Moves north wards over the Indian region The ITCZ passing over the Andhra Pradesh

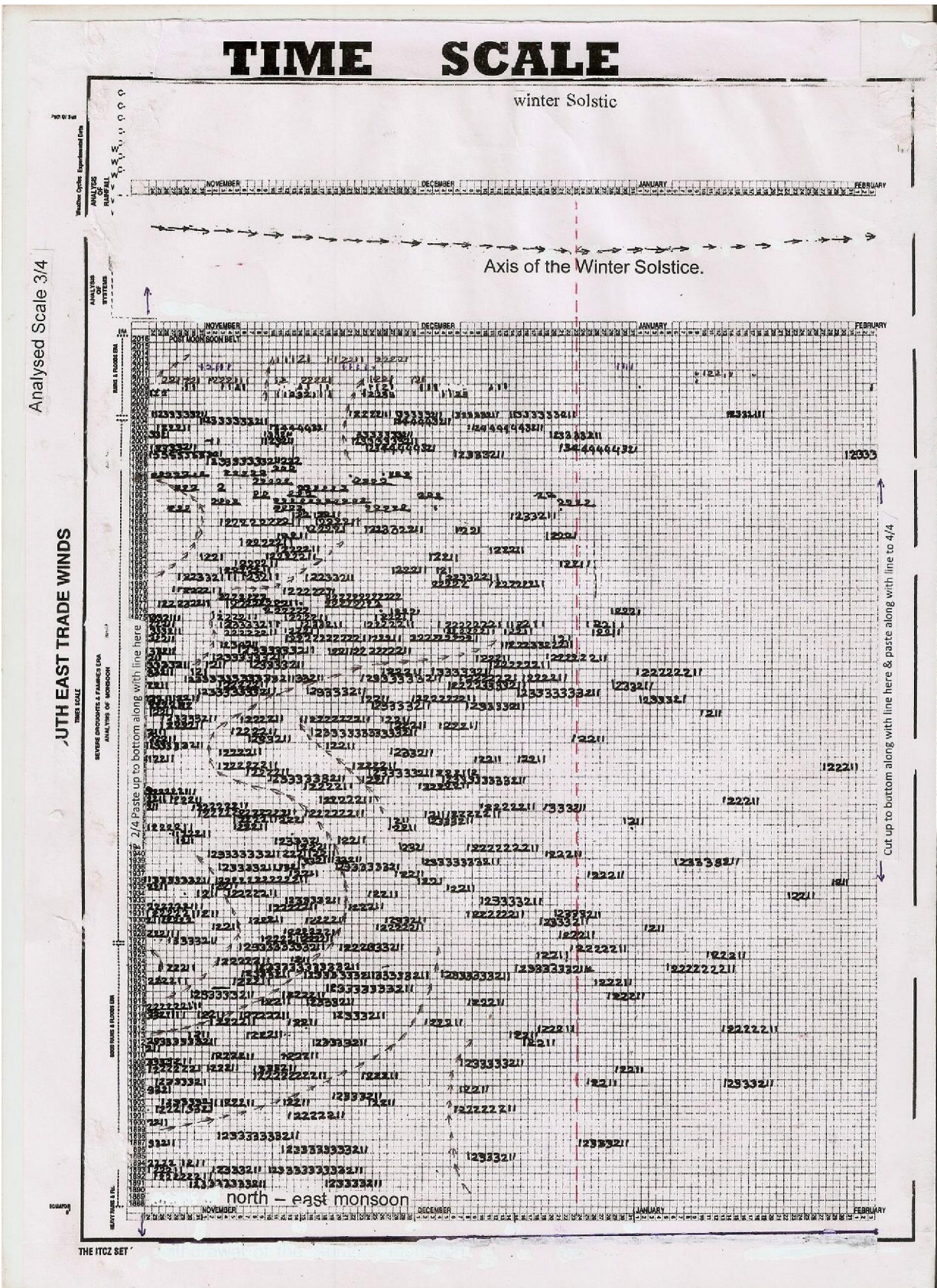


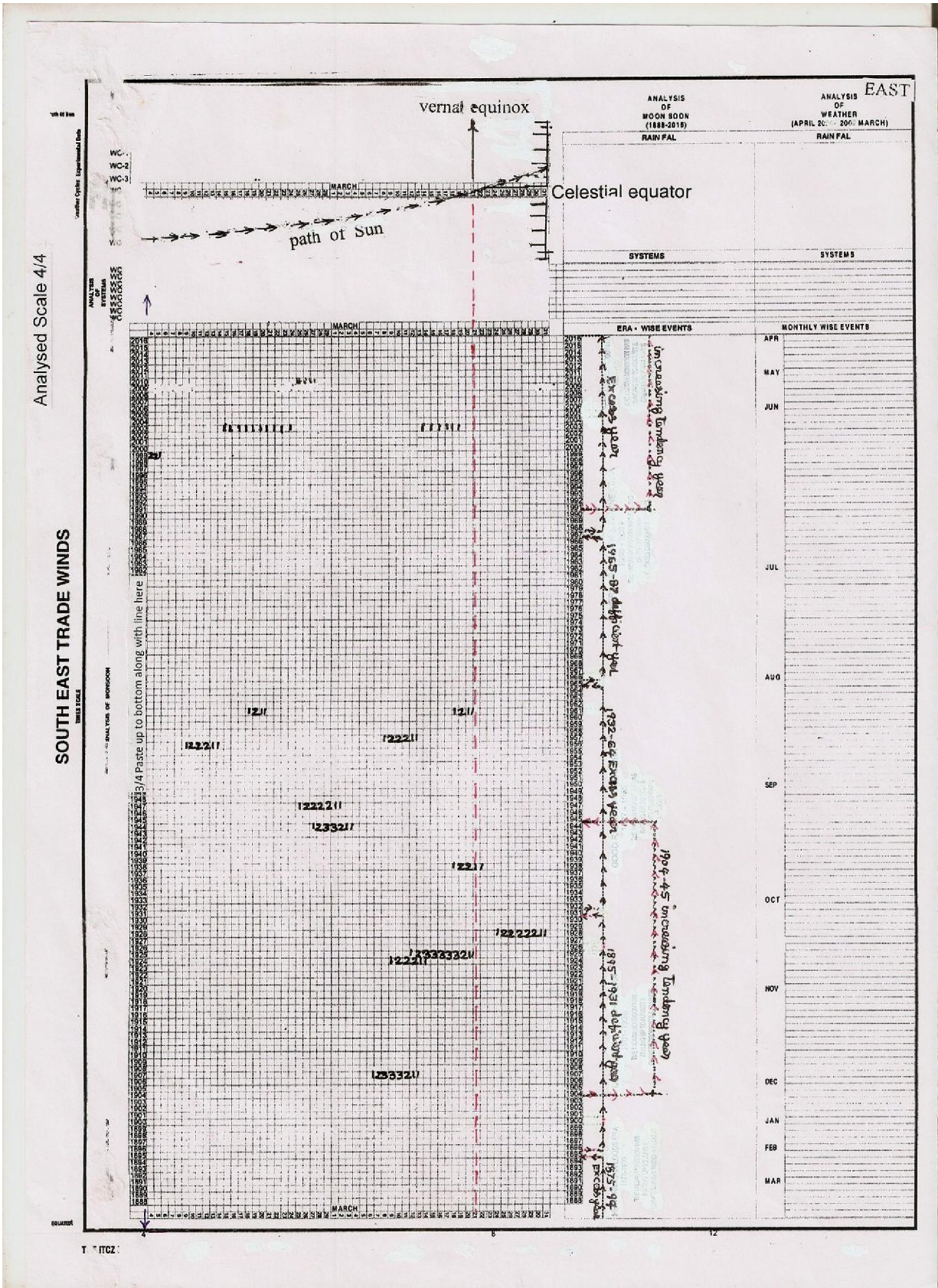


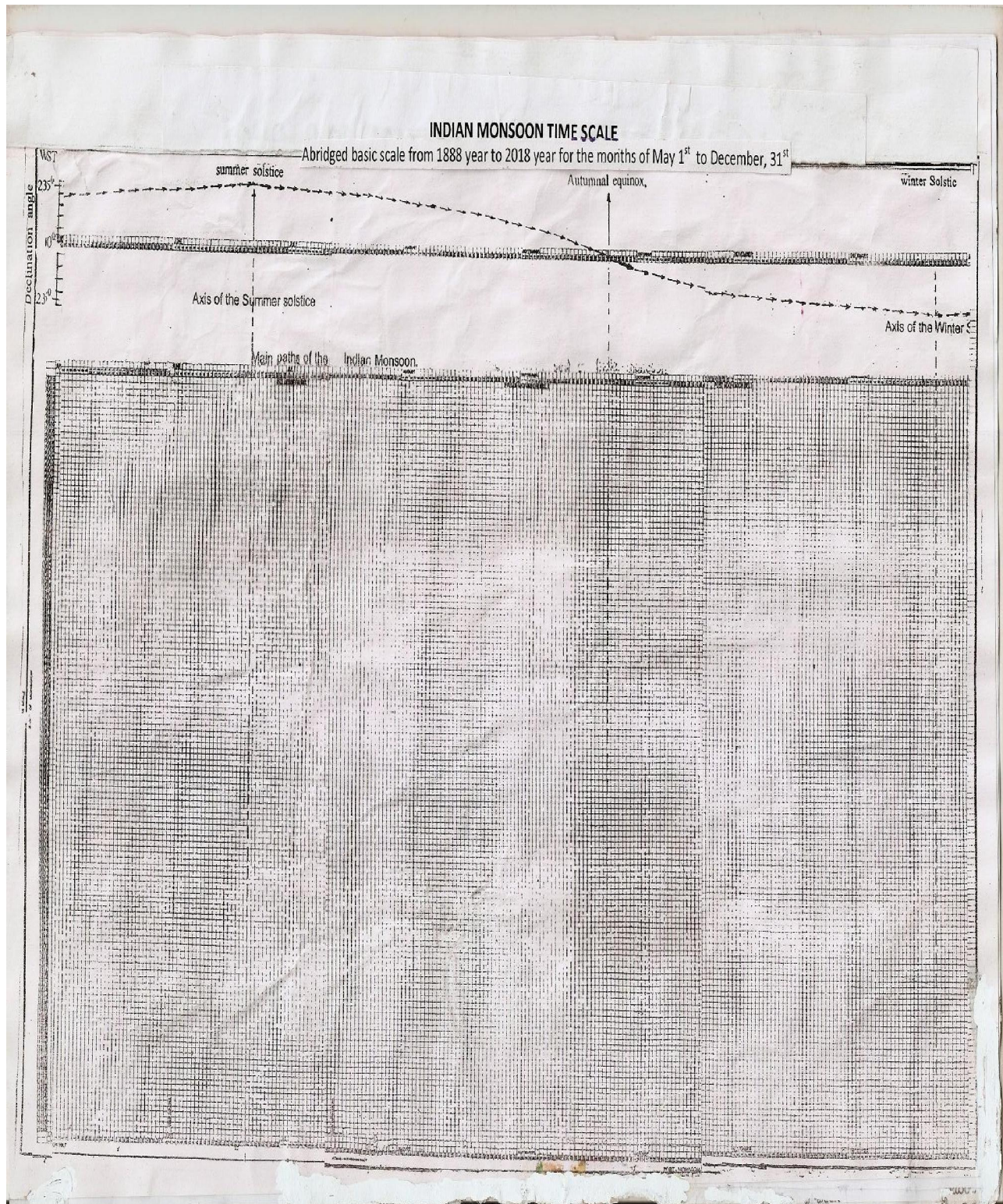


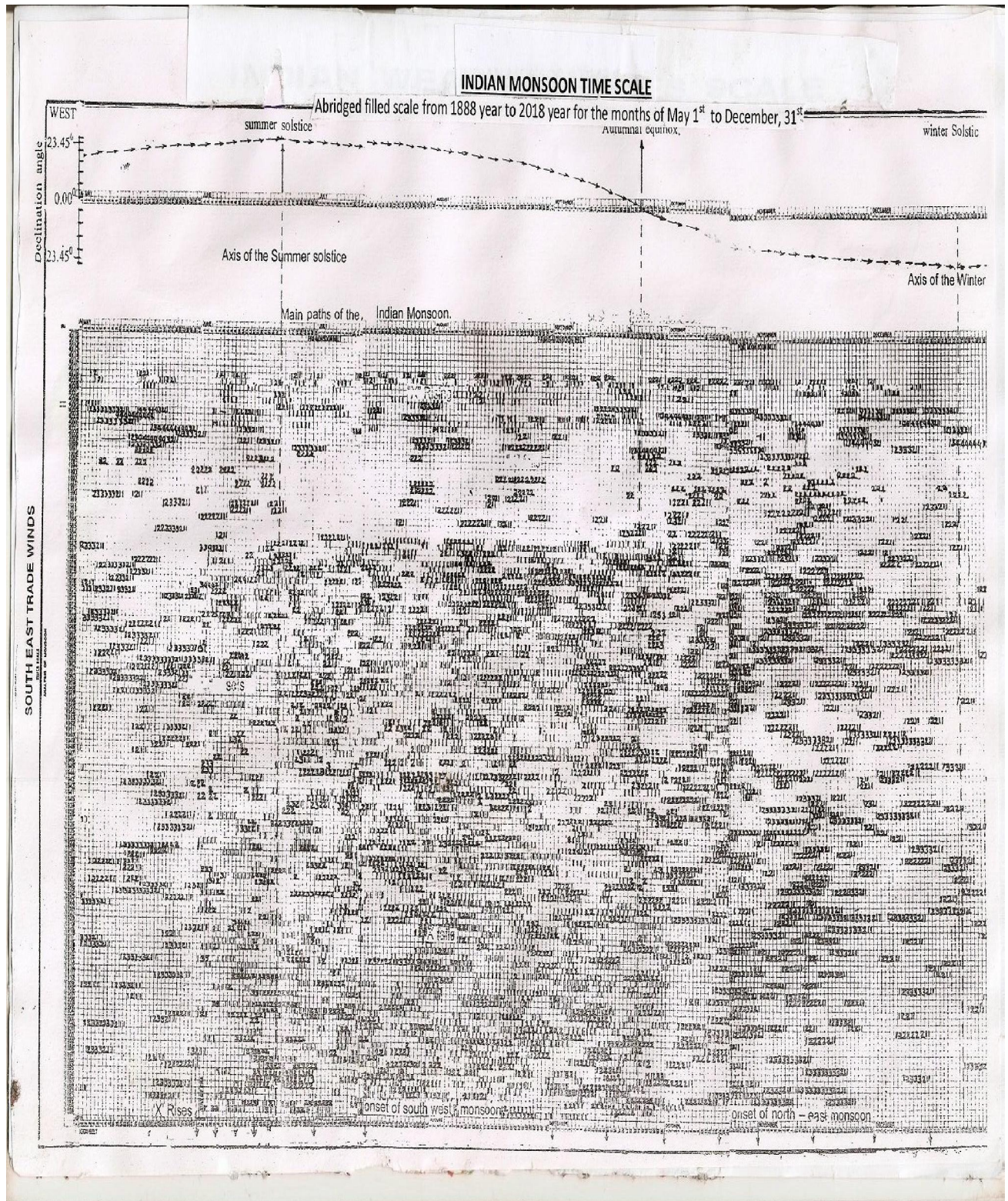


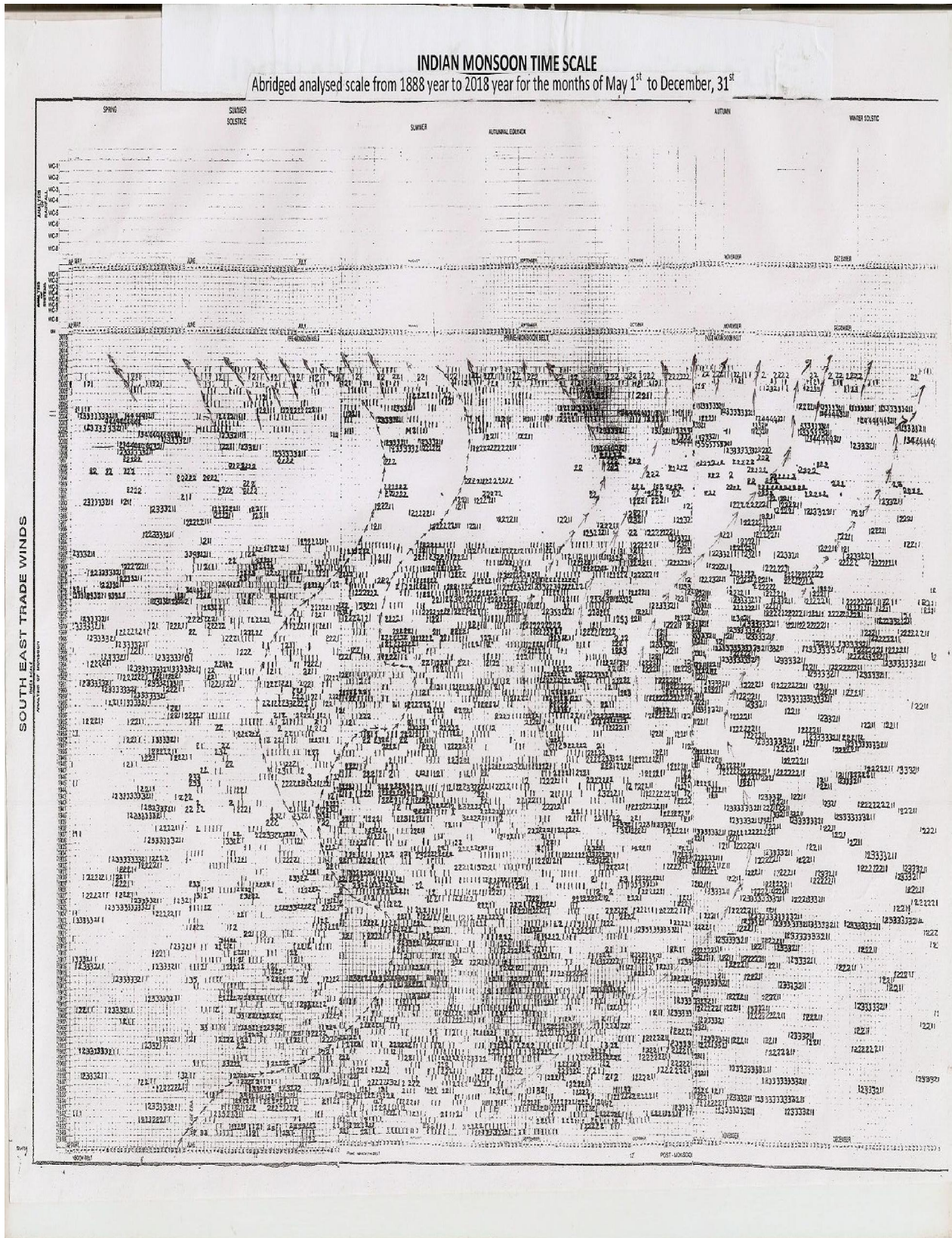












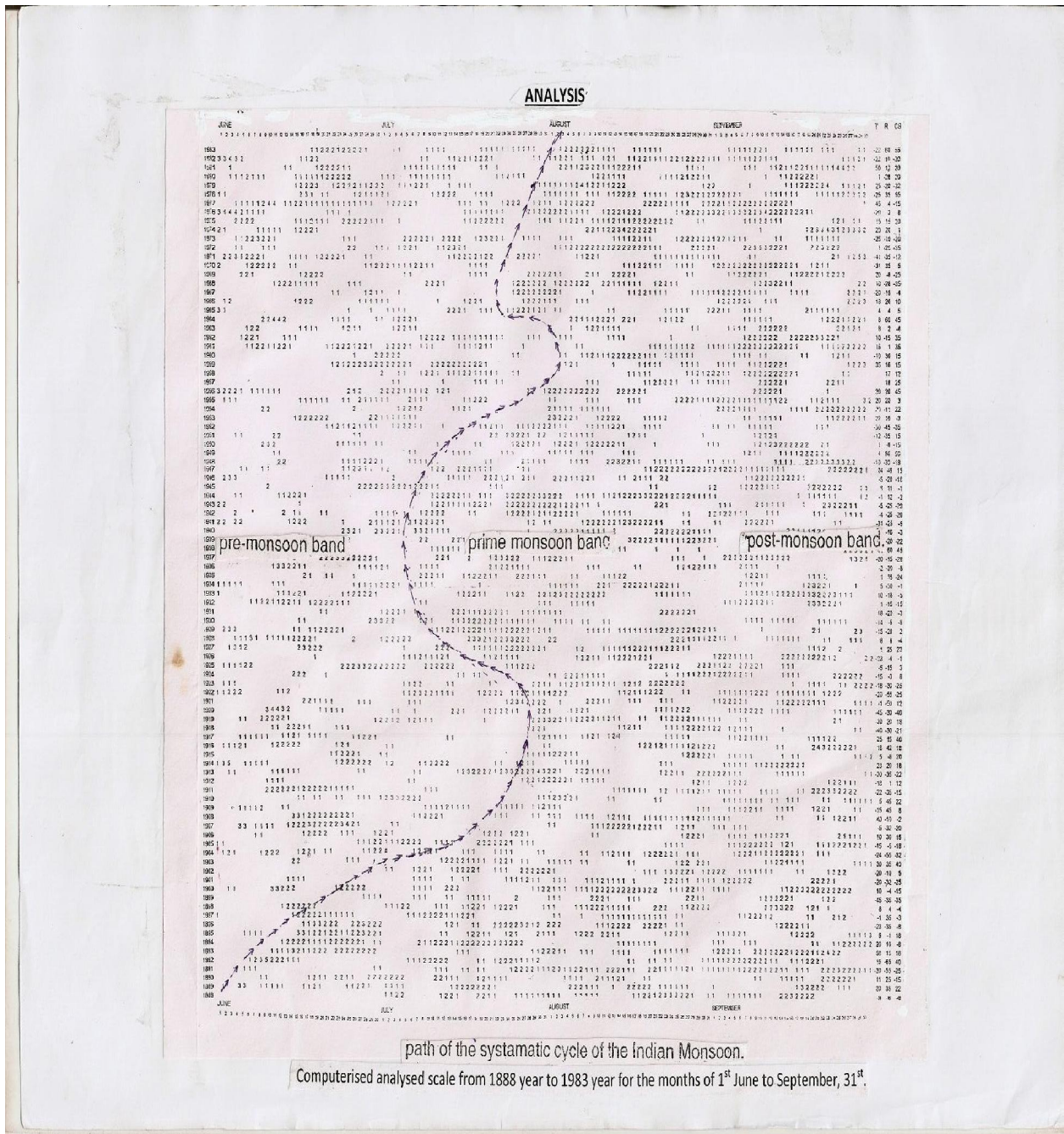
MAP OF THE INDIAN MONSOON

ANALYSIS
OF
YEARS
(1888-1983)

ANALYSIS
OF
Months
(JUN-SEP)

YEAR	JUN	JUL	AUG	SEP
1888	1122222222	1111111111	1222221111	111111
1889	11111111	11111111	11111111	11111111
1890	11111111	11111111	11111111	11111111
1891	11111111	11111111	11111111	11111111
1892	11111111	11111111	11111111	11111111
1893	11111111	11111111	11111111	11111111
1894	11111111	11111111	11111111	11111111
1895	11111111	11111111	11111111	11111111
1896	11111111	11111111	11111111	11111111
1897	11111111	11111111	11111111	11111111
1898	11111111	11111111	11111111	11111111
1899	11111111	11111111	11111111	11111111
1900	11111111	11111111	11111111	11111111
1901	11111111	11111111	11111111	11111111
1902	11111111	11111111	11111111	11111111
1903	11111111	11111111	11111111	11111111
1904	11111111	11111111	11111111	11111111
1905	11111111	11111111	11111111	11111111
1906	11111111	11111111	11111111	11111111
1907	11111111	11111111	11111111	11111111
1908	11111111	11111111	11111111	11111111
1909	11111111	11111111	11111111	11111111
1910	11111111	11111111	11111111	11111111
1911	11111111	11111111	11111111	11111111
1912	11111111	11111111	11111111	11111111
1913	11111111	11111111	11111111	11111111
1914	11111111	11111111	11111111	11111111
1915	11111111	11111111	11111111	11111111
1916	11111111	11111111	11111111	11111111
1917	11111111	11111111	11111111	11111111
1918	11111111	11111111	11111111	11111111
1919	11111111	11111111	11111111	11111111
1920	11111111	11111111	11111111	11111111
1921	11111111	11111111	11111111	11111111
1922	11111111	11111111	11111111	11111111
1923	11111111	11111111	11111111	11111111
1924	11111111	11111111	11111111	11111111
1925	11111111	11111111	11111111	11111111
1926	11111111	11111111	11111111	11111111
1927	11111111	11111111	11111111	11111111
1928	11111111	11111111	11111111	11111111
1929	11111111	11111111	11111111	11111111
1930	11111111	11111111	11111111	11111111
1931	11111111	11111111	11111111	11111111
1932	11111111	11111111	11111111	11111111
1933	11111111	11111111	11111111	11111111
1934	11111111	11111111	11111111	11111111
1935	11111111	11111111	11111111	11111111
1936	11111111	11111111	11111111	11111111
1937	11111111	11111111	11111111	11111111
1938	11111111	11111111	11111111	11111111
1939	11111111	11111111	11111111	11111111
1940	11111111	11111111	11111111	11111111
1941	11111111	11111111	11111111	11111111
1942	11111111	11111111	11111111	11111111
1943	11111111	11111111	11111111	11111111
1944	11111111	11111111	11111111	11111111
1945	11111111	11111111	11111111	11111111
1946	11111111	11111111	11111111	11111111
1947	11111111	11111111	11111111	11111111
1948	11111111	11111111	11111111	11111111
1949	11111111	11111111	11111111	11111111
1950	11111111	11111111	11111111	11111111
1951	11111111	11111111	11111111	11111111
1952	11111111	11111111	11111111	11111111
1953	11111111	11111111	11111111	11111111
1954	11111111	11111111	11111111	11111111
1955	11111111	11111111	11111111	11111111
1956	11111111	11111111	11111111	11111111
1957	11111111	11111111	11111111	11111111
1958	11111111	11111111	11111111	11111111
1959	11111111	11111111	11111111	11111111
1960	11111111	11111111	11111111	11111111
1961	11111111	11111111	11111111	11111111
1962	11111111	11111111	11111111	11111111
1963	11111111	11111111	11111111	11111111
1964	11111111	11111111	11111111	11111111
1965	11111111	11111111	11111111	11111111
1966	11111111	11111111	11111111	11111111
1967	11111111	11111111	11111111	11111111
1968	11111111	11111111	11111111	11111111
1969	11111111	11111111	11111111	11111111
1970	11111111	11111111	11111111	11111111
1971	11111111	11111111	11111111	11111111
1972	11111111	11111111	11111111	11111111
1973	11111111	11111111	11111111	11111111
1974	11111111	11111111	11111111	11111111
1975	11111111	11111111	11111111	11111111
1976	11111111	11111111	11111111	11111111
1977	11111111	11111111	11111111	11111111
1978	11111111	11111111	11111111	11111111
1979	11111111	11111111	11111111	11111111
1980	11111111	11111111	11111111	11111111
1981	11111111	11111111	11111111	11111111
1982	11111111	11111111	11111111	11111111
1983	11111111	11111111	11111111	11111111

Computerised basic scale from 1888 year to 1983 year for the months of 1st June to September, 31st



5/18/2016