In order to systematically analyze the magnetic anomalous distribution of Chinese mainland and its adjacent areas, the ground-based geomagnetic data that includes observatories and repeat stations during 1960–2000 in 10a interval was used here. For ideally derive anomaly model, Taylor polynomial with truncation level 7 was chosen. The anomaly distribution of 1960, 1970, 1980, 1990 and 2000 were modelled respectively, for research the totally trends, all data during 1960~1990 were added into 2000 by CM4 model, all available data were sum up to 2849, and its root mean square (RMS) were also calculated. Results show that the RMS deviations of Taylor models of geomagnetic anomaly field are 122.19nT(1960), 103.24nT (1970), 97.87nT(1980), 86.46nT(1990) and 89.36nT(2000) for delta X, 84.15nT(1960), 72.21nT(1970), 71.37nT(1980), 78.32nT(1990) and 73.91nT(2000) for delta Y, 133.12nT(1960), 135.10nT(1970), 114.52nT(1980), 107.22nT(1990) and 119.88nT(2000) for delta Z, respectively. Finally, the comparison between Taylor anomaly model and CM4, NGDC720 and MF6 has been given.