

INTRODUCTION

In late 2004 Michael Crichton released *State of Fear*. In one fictional scene to further the plot of political sabotage by environmentalist a graph of temperature surface is shown indicating temperature chart for Punta Arenas, Chile, indicating a steady decline in mean temperature by 0.7 degrees Celsius over a hundred years. For this scene Mr. Crichton has been accused of "cherry-picking". To evaluate claims of "cherry picking" by Mr. Crichton, I decided to make comparisons within two frames of reference: space and time.

METHODS

As I found almost half a dozen stations acceptable by location, by restricting the stations to those having a rather consistent history of data collection I found my options reduced to two acceptable stations near Santa Arenas (33 S, 71.7 W): Rio Galagos (51.6 S, 69.3 W) and Ushuala Aero (54.8 S, 68.3 W). For these, the time range of analysis was divided into two periods: 1951- 2003 and 1951-2010.

RESULTS

1951-2003

For the period between 1951 - 2003 results indicated that Punta Arenas (in orange) did indeed undergo a decline in temperature by an average of -0.01 degree C/decade; however, both Rio Galagos (in blue) and Ushuala Aero (in red) increased in temperature by an average of +0.11 and +0.02 degree C/decade, respectively. Fig. 1 below shows the trends in radiative forcing during this period.

For the period between 1951 - 2003, results indicated that Punta Arenas underwent a decline in radiative forcing from 0.18 Watts/meter squared to 0.16, for a -0.02 decrease in radiative forcing. Again, however, both Rio Galagos and Ushuala Aero increased in radiative forcing from +0.16 to +0.73 for an increase of +0.56, and from +0.10 to +0.21 for an increase of +0.11, respectively.

1951-2010

For the period between 1951 - 2010 results in Fig. 2 below indicated that Punta Arenas (again, in orange) underwent an increase in temperature by an average of +0.06 degree C/decade, while both Rio Galagos (again, in blue) and Ushuala Aero (again, in red) both increased in temperature by an average of +0.12 and +0.06 degree C/decade, respectively. Fig. 2 below shows the trends in radiative forcing during this period.

For the period between 1951 - 2010, results indicated that Punta Arenas underwent an average increase in radiative forcing from 0.07 Watts/meter squared to 0.39, for a 0.37 increase in radiative forcing. Both Rio Galagos and Ushuala Aero increased in radiative forcing from +0.16 to +0.82 for an increase of +0.66, and from +0.03 to +0.39 for an average increase of +0.36, respectively.

DISCUSSION

As the data show, a change in locality would have made a difference. Of the three stations chosen by locality and data density only the Punta Arenas station used by Mr. Crichton with its average of -0.01 decrease in degrees Celsius (and its -0.02 decrease in watts/meter-squared) would have supported this critical scene construction. As far as time, by extending the range of data collection by the Punta Arenas station beyond the original publishing date 2004 by approximately a decade

the estimation of intensity of both the temperature and radiative forcing would have increased +0.06 degrees Celsius/decade and +0.35 Watts/meter-squared, respectively.

CONCLUSION

As to the question of whether Mr Crichton “cherry-picked” his data to make his argument, I would say he did. Did I “cherry-pick” my results? So, “Cherry Picking Michael Crichton”?... you decide.

Fig.1

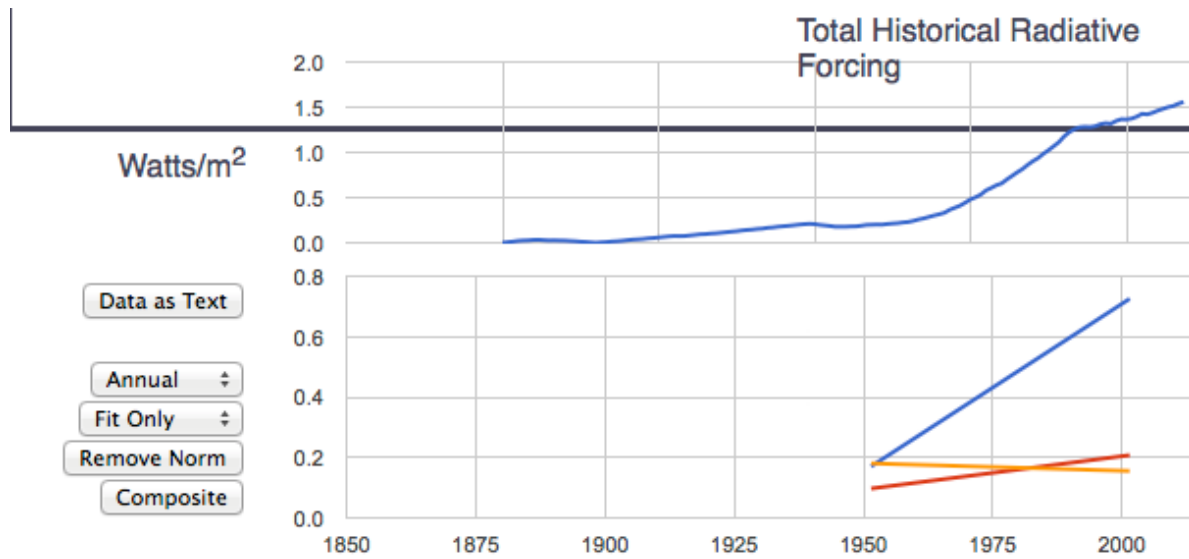


Fig.2

