As The World Burns

This column comes to you directly after the climate marches and demonstrations of mid-September 2023, which one can only hope will open people's eyes at last.

For openers, have a look at the chart below which is from Jeff Goodell's most recent book, The Heat Will Kill You First, and from the NOAA and the Woods Hole Oceanographic Institute data. The figures are from 2022 and 2023, as are those in the commentary which follows.

Heat Index

30 million

Number of people who live in extreme heat today (above 85 degrees mean annual temperature)

2 billion

Number of people who are likely to live in extreme heat in 2070

1 mile per year

Average speed at which land animals are moving to higher, cooler latitudes

4 miles per year

Average speed at which fish are moving to higher, cooler latitudes

2.5 miles per year

Average speed at which malaria-carrying mosquitoes are moving to higher, cooler latitudes

210 million

Increase in number of people facing acute food insecurity since 2019

21 percent

Loss in global agricultural production in the last 20 years due to climate-driven heat and drought

250,000

Annual worldwide deaths from firearms

489,000

Annual worldwide deaths from extreme heat

For members of the peace movement, the figures that could most likely attract attention are the ones about food insecurity, loss in agricultural production, and deaths from firearms. In late June, the World Food Program reported that the number of people worldwide who are facing acute hunger had increased from 100 million in 2020 to 345 million as of early this summer. It traced the increase to drought in Asia and especially in East Africa, the war in Ukraine, and Russia's cutoff of grain exports from that country, laying its stress on the latter two causes. Nor are the

Americas immune. Along with wildfires in North America come accounts of 100 degree heat during August in Chile, in the midst of that country's winter! That same winter month, Bolivia experienced a high of 113! In Brazil, indigenous leader Txai Surui has warned that the Amazon forest is at a tipping point, close to drying out into savannah, even though the Lula government has cut deforestation 60 percent.

Then we have water and ice. During this past winter in Antarctica, there were a million fewer square miles of sea ice than in previous winters, setting up an open water feedback loop which will melt more sea ice and creep into Antartica's land ice and glaciers. The eastern half of that continent has been experiencing temperatures *seventy* degrees higher than normal. Similar things are happening in Greenland. If the Thwaites glacier in western Antarctica melts, as it has begun doing, sea levels worldwide will rise ten feet. Should all of Greenland's ice melt, sea levels worldwide will rise twenty-two feet. Should all Antarctica's ice melt, the sea rise will be one hundred feet. Keep in mind that each foot of rise in sea level means the ocean will move 100 yards inland. The Mississippi delta and the Everglades are already feeling the effect, with what that means for southern Louisiana's and southern Florida's fresh water supply.

The open seas are also getting warmer. According to researchers at The National Oceanic and Atmospheric Administration and the Wood's Hole Oceanographic Institute, the temperature of the Atlantic Ocean off the coasts of Newfoundland and Labrador has risen 15F degrees over anything previously recorded, with forty percent of the world's high seas now experiencing heat waves. The summer's ocean temperatures off the Florida Keys went as high as 101F. The El Nino and La Nina cycles in the Pacific are increasingly strong, which means more extreme weather there. We saw the results of that in August, with a record setting hurricane and wildfires in Maui. In the Atlantic, there have been disruptions in the ocean currents which generate the Gulf Stream. If things keep going as they have, the consequences for the world's coastal cities and coastal plains, where most of our planet's population lives, will be catastrophic. These are all things we have to think about. Now. And as many readers of this column doubtless know, this is only part of what is going on. On the global level, this July and August were easily the warmest months on the planet ever recorded.

As these developments continue, the connections among global killing heat, war, and militarism become more and more clearcut. Those connections will be the subject of the next column in this series.