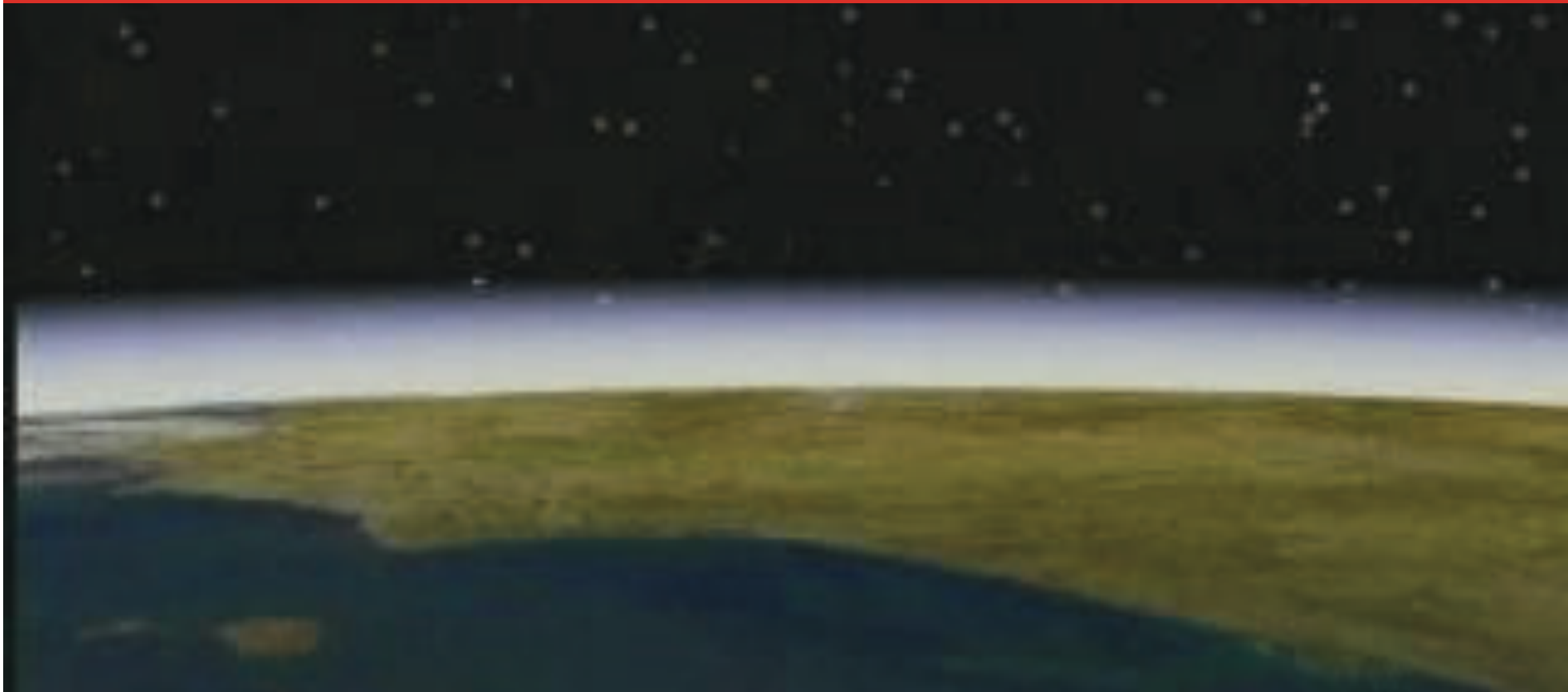


THE OZONE IS DYING

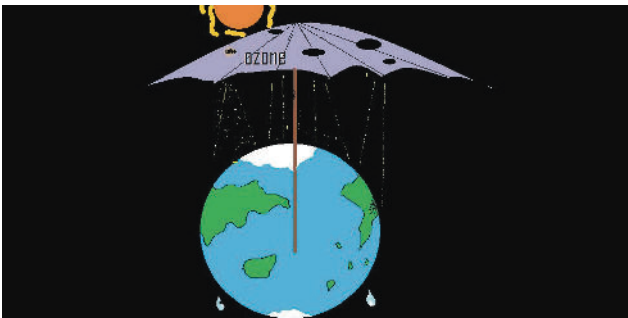
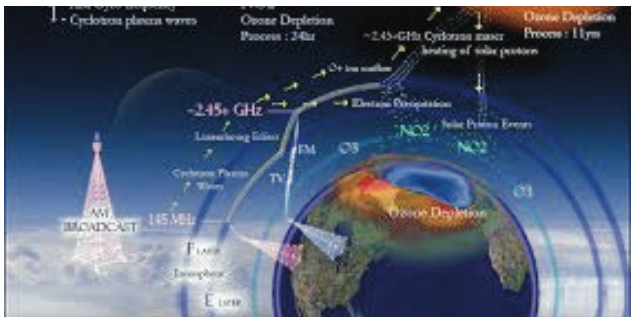
NASA's research strikes out the world



OZONE LAYER VANISHING

From NASA'S desk we seem to moving towards an extinct era where the human existence would just be a tale told by only the aliens if they exist. The earths blanket is worn out only a mare sheet to cover us from the the UV radiation.

Chlorofluorocarbons or CFCs are used in refrigerants and coolants. CFCs are typically heavier than air, but they can ascend in the atmosphere in a process that takes 2-5 years. Once in the stratosphere, UV radiation break apart the CFC molecules into dangerous chlorine compounds which are known Ozone Depleting Substances (ODS). The chlorine literally slams into the ozone and breaks it apart. In the atmosphere a single chlorine atom can break apart ozone molecules again and again and again.



its major impacts on human beings

Skin Cancer: exposure to UV rays from sun can lead to increased risk for developing of several types of skin cancers. Malignant melanoma, basal and squamous cell carcinoma are the most common cancers caused by exposure to UV rays.

Eye Damage: UV rays are harmful for our eyes too. Direct exposure to UV rays can lead to Cataract problems, and also Photokeratitis or snow blindness.

Damage to Immune system: our immune system is also highly vulnerable to UV rays. Increased exposure to UV rays can lead to weakening of the response of immune system and even impairment of the immune system in extreme cases.

Aging of skin: exposure to UV rays can lead to acceleration of the aging process of your skin. This will result in you looking older than what you actually are. It can also lead to photo allergy that result in outbreak of rashes in fair skinned people

In humans, exposure to UV rays can also lead to difficulty in breathing, chest pain, and throat irritation and

can even lead to hampering of lung function.

UV rays affect other life forms too. It adversely affects the different species of amphibians and is one of the prime reasons for the declining numbers of the amphibian species. It affects them in every stage of their life cycle; from hampering the growth and development in the larvae stage, deformities and decreases immunities in some species and to even retinal damage and blindness in some species.

UV rays also have adverse effect on the marine ecosystem. It adversely affects the planktons which plays a vital role in the food chain and oceanic carbon cycle. Affecting phytoplankton will in turn affect the whole ocean ecosystem.

UV rays will also affect the plants. UV radiations can alter the time of flowering in some plant species. It can also directly affect the plant growth by altering the physiological and developmental processes of the plants.

Industrialization and vehicle exhaust emission being the major contribution to generation of CFC's the



only way to sustain our existence is to stop these emissions. We don't know how or when everything will fall apart.

NASA has something which is not appealing to us . The report written to heads of the organization read as below.

By 2040, global ozone concentrations fall below 220 DU, the same levels that currently comprise the "hole" over Antarctica. (In 1974, globally averaged ozone was 315 DU.) The UV index in mid-latitude cities reaches 15 around noon on a clear summer day (a UV index of 10 is considered extreme today.), giving a perceptible sunburn in about 10 minutes. Over Antarctica, the ozone hole becomes a year-round fixture.

In the 2050s, something strange happens in the modeled world: Ozone levels in the stratosphere over the tropics collapse to near zero in a process similar to the one that creates the Antarctic ozone hole.

By the end of the model run in 2065, global ozone drops to 110 DU, a 67 percent drop from the 1970s. Year-round polar values hover between 50 and 100 DU (down from 300-500 in 1960). The intensity of UV radiation at Earth's surface doubles; at certain shorter wavelengths, intensity rises by as much as 10,000 times. Skin cancer-causing radiation soars.

A way to stabilize the emission , globally we are under pressure to reduce release of any flourinated gas. An agreement is still underway.

Global and European agreements to limit F-gases

Flourinated-gas emissions are monitored under the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto Protocol, but not currently addressed by the Montreal Protocol. Fluorinated gases presently account for about 2% of global greenhouse gas emissions. Several countries have started to take measures on F-gases, led by the European Union (EU) which has committed to reducing use of HFCs, the most important F-gases, by 80% of today's levels by 2030.

There are two approaches to reducing F-gas emissions. The first approach is to avoid the use of F-gases completely by using gases or technologies that are less damaging to the climate. The second approach is to reduce the use of F-gases in products and equipment. The EU first set out specific policies to reduce F-gas emissions in 2006 with the so-called 2006 F-gas Regulation, and with a directive limiting F-gases used in air conditioners in cars, the so-called MAC Directive. In the absence of this legislation, F-gas emissions were projected to increase.

