

No thaw after atom winter — scientists

M.S.

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Ultra-violet radiation 'will kill all life'

By Our FOREIGN STAFF

WHAT LIFE on earth is not killed off by a "nuclear winter" following any nuclear war will die from hard ultra-violet radiation, killing off living forms even deep in the world's oceans.

That was the forecast of the consequences of a nuclear war at a special international seminar in the Soviet city of Leningrad yesterday. It is the gloomiest yet by any experts.

World experts on the effects of a nuclear war and damage to the environment have spent the week discussing a series of papers on various aspects of the new theories of "nuclear winter."

These destroy any residual hopes that civil defence measures may be able to keep some human life in being after a nuclear holocaust.

At yesterday's session Australian scientist Barry Pittock argued that the impact of the winter would be wider even than that conceived by an international panel of Soviet and US experts reporting to the Pope earlier this year.

Their conclusions had been that much life would remain in the oceans and parts of the southern hemisphere.

A smoke and dust envelope will be created around the world in the lower atmosphere as a result of the vast fires triggered off by the nuclear blasts as well as the huge quantities of ash and smoke created by the explosions.

The result will be a freezing winter over virtually all the earth's land surface.

But it will also cut off the process of photosynthesis both for plant and ocean life within a matter of hours of war breaking out, Mr. Pittock said.

At the same time the nuclear explosions will, in effect, rip apart the protective ozone layer in the earth's upper atmosphere.

Without the protection of the ozone layer hard ultra-violet radiation will penetrate when-

ever the clouds of ash and dust separate, both to the earth's surface and several hundred feet down into the oceans.

"We can confidently say that an irreversible ecological cataclysm will hit the entirety of the earth," he said.

Professor Richard Turco of the US reported on his research calculating the quantities of "acid rain" which would be caused by a nuclear war, producing the discharge of huge quantities of sulphur and nitrogen oxides into the atmosphere.

The quantities involved would be scores of times the present rate, enough to kill off what crops and vegetation survived the freeze and the fires.

Prof. Turco said the research team has estimated that a nuclear war using only 1 per cent of the world's arsenal of nuclear weapons would be enough to both eliminate the ozone layer and produce sufficient acid rain to kill all life forms.

Research workers from the USSR Academy of Scientists said their investigations supported the US findings.

Both groups added that while the earth's surface would freeze, the higher regions of the atmosphere would warm up causing both the polar ice caps and mountain glaciers to melt and creating huge floods.

Soviet and West German climatologists also presented papers showing that even if all nuclear explosions were restricted to the northern hemisphere the effect would be to radically change the world's wind patterns.

The new system of prevailing winds would still bring the "nuclear aerosol" of fall out, dust and ash across the skies of the south within a matter of weeks if not days.

In Brussels yesterday NATO defence ministers, including Britain's Michael Heseltine, were pressing the Dutch to agree to take 48 Cruise missiles. A Dutch minister was quoted as saying this looked increasingly unlikely.