

The months of most frequent hurricane occurrence are August, September and October.

Hurricanes are large storms accompanied by violent destructive winds, heavy rains, and high waves and tides. The winds whirl in a counter-clockwise direction in the Northern Hemisphere, with the highest winds circling the relatively quiet eye.

Although the winds can do great damage, the storm tide may be the greatest killer. The greatest loss of life during hurricanes is caused by drowning. As the storm moves forward, huge waves pile up. They pound and smash shore buildings, roads and bridges.

Hurricanes Named

As soon as there are definite indications that a hurricane may be forming, it is given a name and the Weather Bureau begins issuing "advisories" so that everyone can know where the storm is and where it is believed headed. Should the hurricane approach the coast, a "watch" is announced for vulnerable areas, indicating that those in the area should listen for future advisories.

When the forecaster finds that the hurricane is likely to slam into a coastal area, a "warning" is issued. This means all precautions should be taken immediately against the full force of the storm.

Girls' names have been used by the Weather Bureau to identify tropical cyclones in the Atlantic, Caribbean and Gulf of Mexico since 1953. In 1960, a semi-permanent list of four sets of names in alphabetical order was introduced. A separate set of names is used each year, beginning with the first name in each set. The letters "q, u, x, y, and z" are not included because of the scarcity of names beginning with those letters.

PUBLIC SAFETY

Disarmament Urged

► INCREASING the already tremendous strength and power of United States military force cannot assure national security or prevent war. Neither will a nuclear test ban agreement.

No amount of weapons really can assure the prevention of a first strike by an enemy, Dr. Louis B. Sohn, professor of international law at Harvard and consultant to the Arms Control and Disarmament Agency, told SCIENCE SERVICE. A nuclear test ban is a side issue upon which time and effort have been expended all out of proportion, he said. A ban on nuclear tests can reduce fallout but not the threat of atomic war.

"No one complains about the testing of military delivery vehicles which continue without let-up," Dr. Sohn said. Control of the development and production of devices that can deliver a nuclear bomb probably should have greater priority than a test ban, he said.

Only a concerted effort of all scientific groups can bring about a change in the present situation and prevent the military

The sets are repeated in four years, with the exception that the name of a major hurricane seriously affecting the U.S. mainland is dropped from the list for ten years and another name substituted.

The names for 1963 are: Arlene, Beulah, Cindy, Debra, Edith, Flora, Ginny, Hannah, Irene, Janice, Kristy, Laura, Margo, Nona, Orchid, Portia, Rachel, Sandra, Terese, Verna, and Wallis.

For 1964, hurricanes will be named: Abby, Brenda, Cleo, Dora, Ethel, Florence, Gladys, Hilda, Isbell, Janet, Katy, Lila, Molly, Nita, Odette, Paula, Roxie, Stella, Trudy, Vesta, and Winny.

During 1965, the names are: Anna, Betsy, Carol, Debbie, Elena, Frances, Gerda, Hattie, Inga, Jenny, Kara, Laurie, Martha, Netty, Orva, Peggy, Rhoda, Sadie, Tanya, Virgy and Wenda.

Each year the Weather Bureau emphasizes that the names of particular individuals have NOT been chosen for inclusion. They are picked because the names are short, clearly pronounced, quickly recognized and easily remembered.

These requirements are necessary because a single hurricane can cause millions of additional telephone calls, thousands of additional news bulletins over radio and television, numerous newspaper stories and countless telegrams, written messages, advice, warnings and oral instructions among the millions of persons who may be affected.

The same kind of storm called a hurricane in the Atlantic is called by different names in other areas of the world.

The hurricane is identical with the typhoon of the China Sea, the baguio of the Philippines and the cyclone of the Bay of Bengal. Tropical cyclones occur over every major tropical ocean except the South Atlantic.

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use and delivery of weapons.

This effort, to be effective, requires a greater investment of funds both nationally and internationally. For every billion dollars spent on arms, at least one million should be used for disarmament, Dr. Sohn advised.

The longer the delay in achieving disarmament, the more difficult the task becomes since as new weapons are developed controls become obsolete.

Dr. Sohn, a speaker at the first National Conference of the Congress of Scientists on Survival (S.O.S.), is the author of the zonal plan for disarmament. The Sohn plan is favored by the Kennedy Administration. Under this plan each nation would be divided into several zones. An international team would select a zone at random each year for disarmament. Inspection on site and border checks would be made by international teams.

The Russians have officially rejected the zonal disarmament proposal at the Geneva meeting; but Dr. Sohn believes that subse-

quent unofficial inquiries by Soviet officials indicate a growing interest.

"I assume one reason they (the Russians) want a postponement of the current disarmament talks is perhaps to come up with a version of their own (zonal plan) when meetings are resumed in August," he said.

Peace today depends on achieving effectively controlled disarmament, efficient but properly restrained United Nations Peace Force, adequate means for settling both legal and political disputes, development of international law into world law, more rapid growth of the underdeveloped areas of the world and the strengthening of the United Nations, Dr. Sohn said.

Effectively controlled disarmament could be established by "built-in controls." One essential control is a police force, preferably under the United Nations, that would consist of troops made up of all nations, with a limited number from each nation. These troops would be under multi-lateral command. Command and troops would be rotated regularly to prevent concentration of authority and power in any one area or any one nation.

The jurisdiction of the World Court might be expanded to interpret treaties, Dr. Sohn suggested. For example, the language of a treaty on space could be ruled on and clarified by the World Court.

For political disputes, a World Equity Tribunal could determine what is a just and proper solution for such problems as Berlin, Laos and the Congo.

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ZOOLOGY

Lamprey Eel Shrinks During Migration

► THE RIVER lamprey eel shrinks in length while migrating upstream to spawn. The shortening takes place while fasting.

Contrary to most animals which only lose weight, the river lampreys shorten, keeping essentially the same length-to-weight ratio, Dr. Lis Olesen Larsen, the University of Copenhagen, reported in *Nature*, 194:1093, 1962.

Between migration in autumn and spawning in spring the animals do not eat, and their gut is reduced. The eel loses weight but it loses length in the same proportion.

This shortening during fasting has also been observed in planarians (flatworms) and is probably common in other animals that do not have stiff skeletons.

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Cesium-137 is well-suited for the sterilization of medical supplies and for the preservation of food.

Cystic fibrosis now ranks high as a cause of death among childhood diseases.

Royal jelly, a special food of queen bees, has no practical value for humans as a food, drug, or cosmetic.

Special plastic materials, which can be tinted to any desired hue, provide the latest possibility: multicolored pavement.