



Much Ado About Weather



Control Believed



Next Step

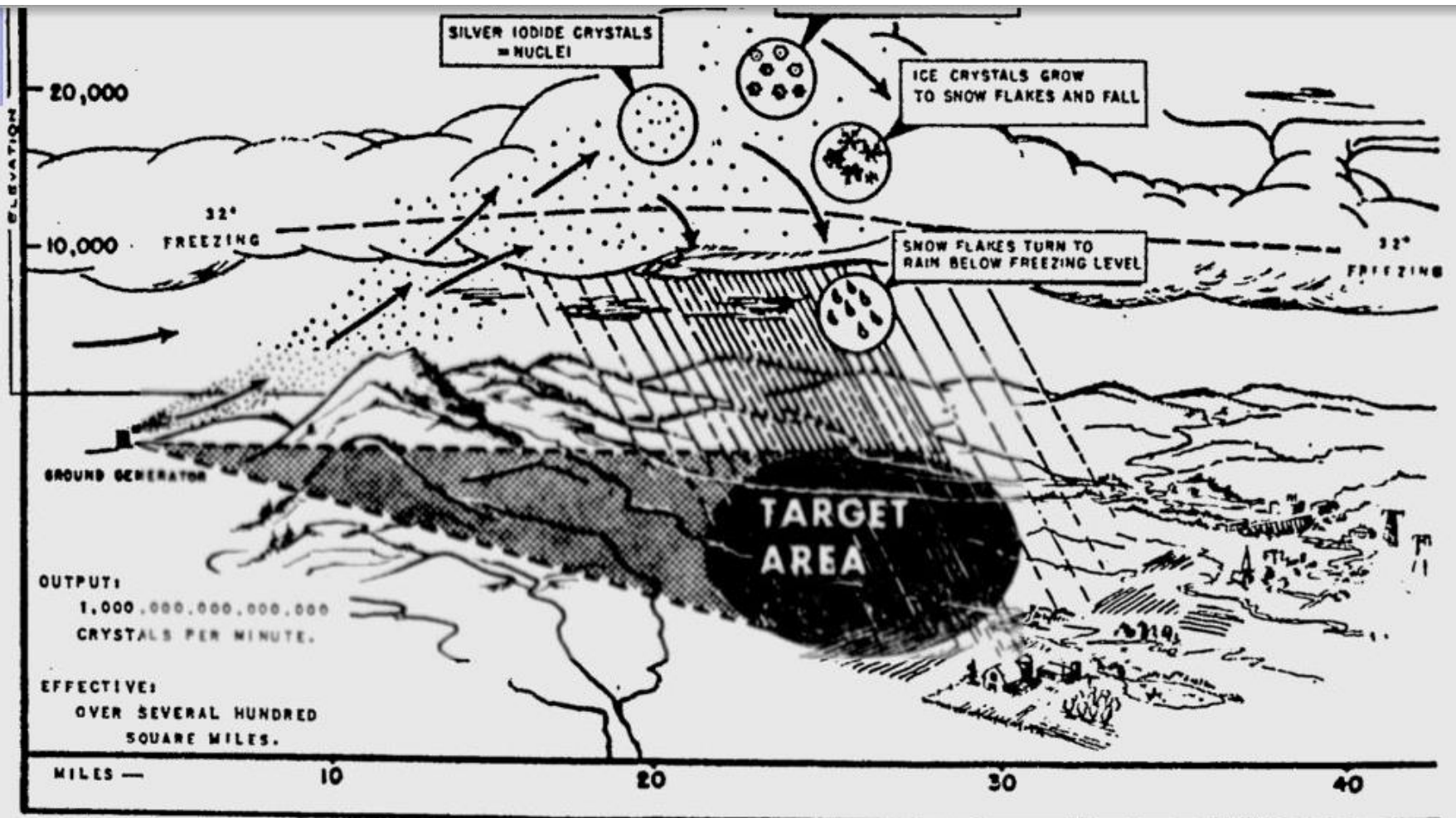
(With Press Weatherbird Donald Dingbat loyally standing by the pumps for the late-April floods, it's time to talk about the progress of "rain-making.")

(This, the fourth of a series on man's accelerating struggle with the weather, finds the struggle is not confined to the upper atmosphere.)

(As the Weatherbird might put it, wherever meteorologists gather, the air may be full of "flying dingbats.")

By GEORGE THOMAS

To you, the weather may be just a series of personal adventures—frostbite, heat cramps, a



lost crop or a surprise cloudburst at every other picnic.

But many scientists are warning of a far larger role it may soon play in world affairs—one that may decide the fate of freedom everywhere.

Some feel that the U. S. is losing to Russia a vital race for control of the world's weather.

A leading spokesman for this view is Dr. Irving P. Krick of Denver—the man who officially forecast the weather for "D-Day" and three presidential inaugurations.

Weather Bureau

Perhaps the nation's best-known "private" meteorologist, Dr. Krick charges that the U. S. Weather Bureau is standing in the way of U. S. progress in this field to "protect its own position."

As he put it to this reporter:

"The thoughtful public is beginning to ask why the tremendous impact of weather modification operations in the great drought of the early 50s has not been exploited by the United States in its relationship with the emerging nations and older allies."

[He was referring to "successes" claimed for "qualified" private weather control firms in relieving drought in some

CLOUDS 'GOING TO SEED'—One quadrillion (1,000,000,000,000,000) silver iodide particles per minute drift into upper air from generator on ground at left. These particles, acting as "nuclei," collect cloud moisture and form droplets—or ice crystals,

pitted against Dr. Krick and his supporters—with varying shades of scientific opinion somewhere between these two poles.

In the second, the free world is pictured as vying with the Soviet sphere for ultimate control of the weather of the entire planet.

As Dr. Krick sees it, the Weather Bureau—"in an effort to cover up their own weaknesses"—is refusing to recognize technological advances made by private firms in long-range weather forecasting and control.

'Proven In Field'

By doing so, he said, it is creating a situation where U. S. time and funds are being

U. S. time and funds are being wasted doing basic laboratory research that has already been performed and even "proven in the field."

"This," he said, "would not be particularly serious except — it is placing the United States at a disadvantage because of obvious political, economic and indeed military implications of weather control."

depending on altitude and temperature. They do so more readily than the dust particles around which normal raindrops form—and at altitudes at which normal raindrops can't form. This is the basic method of increasing precipitation from rain clouds



DR. IRVING P. KRICK
Critical of U. S. Weather Bureau.

Perhaps the best answer to that is this: A total of about 19 per cent of additional rainfall is what distinguished the average "prosperous" year from the average drought year in the Midwest over the past three decades.

In other words, 10 to 15 per cent more rainfall by seeding would provide an important boost to a drought-hit area.

About Dr. Krick's qualifications to speak for "private" meteorology:

Now president of Water Resources Development Corp.—largest "private" firm Dr. Krick headed the meteorology department of California Institute of Technology from 1933 to 1948.

During this period, he

worked out his fundamentals for long-range forecasting based on repetition of basic weather patterns over long periods and effects of solar activity on these.

After several limited initial "successes," his research was backed by the U. S. Air Force in World War II. That is how he came to be picked to select the right day for weather

in relieving drought in some areas by "seeding" rain clouds with silver iodide to increase rainfall.]

"The blame lies squarely on the shoulders of 'official' meteorologists who are unprepared technically to copy those of us in private enterprise in the application of these new technologies,

"They would rather protect their currently entrenched position by slandering private meteorology than permitting appropriate Government departments to contract for required services in the implementation of these new technologies —"

This bald and rather in-temperate-sounding accusation highlights a long and sometimes bitter controversy among meteorologists on both long-range forecasting and weather control.

On, Over And For

In addition to the universal

In addition to the universal war on the weather, in other words, there are now two other conflicts—the war over the weather, and the war for the weather.

In the first, the generalship of the Weather Bureau is

Outlining these implications, he said:

"The nation that leads in this field has an envious position in forging links with other nations with which such technological advances are shared."

Also:

"I would hate to think that when Russia announces that it will control global weather that the United States has still done nothing officially to counter such a move."

What does the Weather Bureau have to say about all this?

The Answer

Generally pretty much what a Bureau spokesman told the Congressional Committee on Interstate and Foreign Commerce in hearings on the subject in May, 1957:

"A review of the extensive experimentation in cloud seeding which has

cloud seeding which has been undertaken throughout the world indicates that the results to the present time have been inconclusive and indefinite."

As for long-range forecast-

Critical by U. S. Weather Bureau.

ing—further ahead than 30 days—the Weather Bureau's position was explained by Henry Rockwood, head of the Pittsburgh Bureau:

"The Bureau has found no evidence that these predictions have been any more accurate than those made by a toss of a coin."

He also charged that—"as I understand it"—the private weather consulting firms have thrown a major obstacle in the path of progress by refusing to divulge their rain-making secrets.

"You can't blame them for that, I suppose. They're in business to make money, and they can't be expected to give away their trade secrets.

"But that's probably why there may be some duplication of research."

Support for the Krick camp came from the President's Ad-

visory Committee on Weather Control appointed by former President Eisenhower.

'Results . . . Significant'

Testifying before the Committee on Interstate and Foreign Commerce in March, 1958, the President's Ad-

Chairman Howard T. Orville (U. S. Navy-retired), said:

"It (the Committee) has found through its statistical evaluation that cloud seeding . . . produces results which are significant on the West Coast.

"Average increases in storms seeded amount to 10 to 15 per cent over that which would have fallen from natural sources."

Dozens of other less "official" studies in various areas have shown similar or better results — including increases up to 25 or 30 per cent.

The fact that Weather Bureau studies have not shown similar results, the Krick camp charges, can be explained this way:

The Bureau tabulated the results of "all would-be rainmakers — regardless of scientific background or experience."

Assuming the Presidential Advisory Committee's figure of 10 or 15 per cent may be correct for the success of scientifically qualified cloud-seeders, how important is such an increase?

the right day—for weather—for the "D-Day" invasion of Normandy in June, 1944.

Later "successes" have included correct forecasts many months ahead for both Eisenhower inaugurations and this January, the Kennedy inaugural.

Olympic 'Headliner'

Last year he made headlines by predicting the weather for the U. S. Winter Olympics "to the day—almost to the minute" and by achieving a record snowfall by means of cloud-seeding

His cloud-seeding techniques have been reported achieving even greater success in suppression of hail in Canada and control of lightning in the Southern U. S.

Whether all this is sheer luck—or based on the undeniable evidence of unscientific experimentation, as the Weather Bureau tends to believe—one thing is clear.

Dr. Krick is a highly controversial and interesting figure—the flamboyant stormy petrel of American meteorology.

TOMORROW — World wide weather control.