

Project Tango

Rain Engineering in the Singapore Dry Season, July 1988

by

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Primary energy rain engineering experiments conducted by me off Singapore Island in February of 1988, developed techniques for engineering rain, virtually at will, during most of the Singapore year. Later tests after my departure, carried out by my Singapore associates, fully confirmed the practicality of the February developments. Singapore's dry season, with sharply reduced rainfall in June/July/August, remained an unanswered technical question, with its particular set of conditions. Project TANGO was accordingly organized by our company, as a private research venture, to develop primary energy rain engineering techniques for the dry season in Singapore.

Successful results would be commercially applicable in other equatorial and subtropical environments bedeviled by dry-season difficulties. This U.S.-developed technology has been exported during America's own "Big Dry," as a result of prohibitive liability lawsuit risks within the USA.

Concomitant politico-legal problems are less amenable to control than the weather, and make it impossible for the pioneers to place this work in the service of the American people.

The latter two weeks of July were selected for TANGO as roughly coinciding with the middle of the dry season. Certain personages of unquestioned integrity in Singapore were advised in advance of the project. All were externes to our company. The main weather engineering unit, approximately the size of a human head, was placed aboard a 46-foot Hatteras cabin cruiser. Ancillary, fixed-base equipment was installed atop a 31-story building on the southerly shore of Singapore Island. An Apache vertical unit was operated at corporate HQ in the Loyang area, west of Changi airport.

Marine mobile operations commenced 19 July, 1988. By 22 July, 1988, an effective operating method had been worked out. The afternoon radar plots from Changi weather radar show the effects on the region of the primary energy engineering strata-gems employed. The plots between 3:00 pm and 6:00 pm show the diminution of the accretions as the boat headed back from Indonesian waters toward Changi, followed by the rapid rise of rain formations as our "T" technique was employed due east of Singapore Island, between 5:00 pm and 6:00 pm.

The primary energy methods employed are highly proprietary, but earlier disclosures on commercially released videotapes, contain numerous examples of engineered rain formations becoming *SELF-REINFORCING*. This active state was now engineered

into the dry season conditions of Singapore and southern Malaysia. A protracted thunder and lightning barrage ensued that evening, which included numerous strikes within 200 meters of the Apache unit at Loyang.

Successful results would be commercially applicable in other equatorial and subtropical environments bedeviled by dry-season difficulties.

A stout tree at the entrance to corporate HQ succumbed to a combination of lightning and gusty local winds.

One of the distinguished Singaporeans who had been apprised in advance of our operations, received forceful proof of their efficacy. Storm winds ripped an expensive canopy from one of his business enterprises. Singapore is no stranger to violent tropical weather, but unforecast thunder and lightning in the middle of the dry season is unusual.

The ensuing disturbances on 23 July 1988, were kept active by judicious use of the fixed-base units. The situation was then permitted to subside, allowing for a national holiday and with the purpose of then raising a second, similar sequence of events

from the typical dry season baseline conditions.

The weather on 26 July, 1988 was satisfactory for the second venture. Overnight operations 25/26 July with fixed-base units, aimed at triggering an anomalous west-to-east primary flow, appeared to have been successful. From 31 stories up on Singapore's south shore, a dark loom could be observed in the westerly sky. Later study of Changi radar plots verified that a moisture accretion had developed in the northwest quadrant from Singapore. The "gun" boat was taken due south from Changi on the morning of the 26th, until we could turn due west, and clear Singapore city in a long, straight "brewing" pass to the west.

This steady westerly thrust produced visible showers into the reservoir area on Singapore, and this was video taped. By noon, the gunboat was southwest of Singapore city, with the small, spinning geometric device aboard etherically locked into the moisture mass northwest of Singapore, pulling the mass directly down on the gunboat and boosting its size and intensity. This was directly visible to us. Changi radar plots show the scenario precisely. At 11:00 am, the rain mass lies entirely to the north of the east-west Changi vector. Lightning is striking. By noon, the huge blob has oozed well south of the east-west Changi Vector, and is about to engulf western Singapore.

Our specialized "T" technique was implemented at 12:25. The 1:00 pm radar plot shows a *doubling* of the rain mass south of the east-west Changi vector. Lightning (arrow) continues. The dark, blue-black mass of moisture was now not only encroaching on Singapore city, but also was looming west and southwest of our boat, mountains high and threatening. The dramatic scene was videotaped and photographed, as the temperature began dropping steeply amid a rising wind.

By 2:00 pm, Singapore Island was engulfed, and so were we. Running like Dr. Frankenstein before the monster of our own creation, we ran the gunboat aground on a shoal. A deluge ensued, with zero visibility. Singapore Island remained under rain until after 4:00 pm. The official downtown rain gauge

recorded 26.7 mm.

No further operations were conducted that day. Dry season conditions quickly re-established themselves, with a normal 27 July morning. Using a backup boat that was only marginally effective compared with the boat we had damaged, the "T" technique was employed again for two hours in the late afternoon of the 27th, in sheltered waters off Loyang. A series of tremendous deluges ensued on the 28th, resulting in a further 59.9 mm into the downtown Singapore rain gauge, making a total of 114.8 mm for the project period. Singapore reservoirs benefited with 68.3 mm of rain in the same period. Thus ended TANGO, extending over 10 dry season days.

Vital functional information on primary energy in equatorial environments was gained from TANGO. The "T" technique is the most exciting innovation in this kind of engineering in many years, in the opinion of this writer. Because of its potential for destructive misuse, the basic procedure must remain highly proprietary.

With a translator no larger than a human head, radar confirms that we raised about 30,000 square kilometres of rain mass over Singapore, Malaysia and northern Indonesia, in the dry season.

Participating engineers in TANGO now have no doubt that the actual generation of low-pressure systems can be technically tackled and pushed through to success. By means of such engineered implosive vortices, comprehensive reversals of drought can be initiated, and probably sustained. Sagacious use of small, mobile, rotating geometric structures permits in the real world, and in the here-now, weather modification on a scale not feasible with chemical nucleation. The latter is the government-sustained method that absorbs over \$100 million annually in the USA.

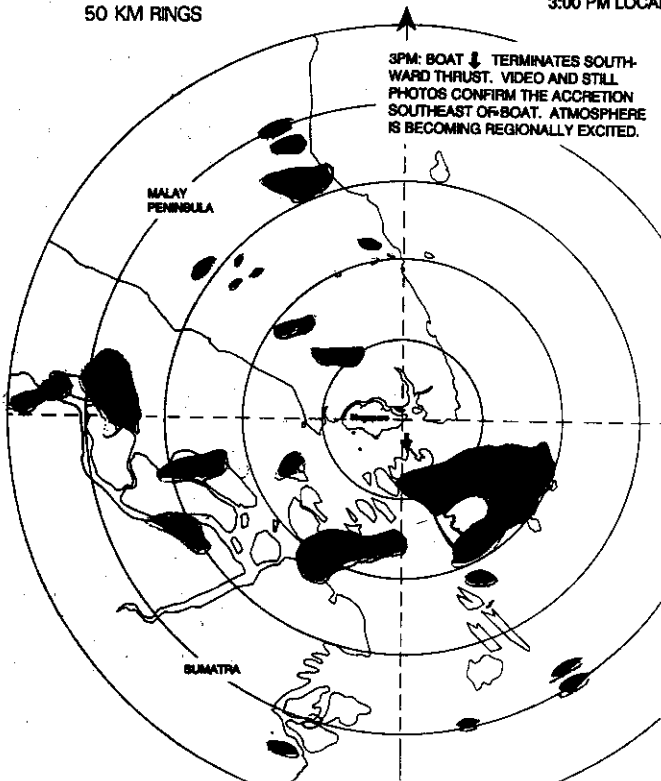
With a translator no larger than a human head, radar confirms that we raised about 30,000 square kilometres of rain mass over Singapore, Malaysia and northern Indonesia, in the dry season. The engineering was conducted on the basis that the weather is a functional physical expression of the biogeometric realities of the underlying ether. Weather engineering and control is thus approached fruitfully via the biogeometric pathway, without chemicals or radiation. TANGO was another step along the biogeometric path.

METEOROLOGICAL SERVICE
SINGAPORE

WEATHER RADAR WATCH
50 KM RINGS

DATE: 22 JULY 88

TIME: 0700 UTC
3:00 PM LOCAL

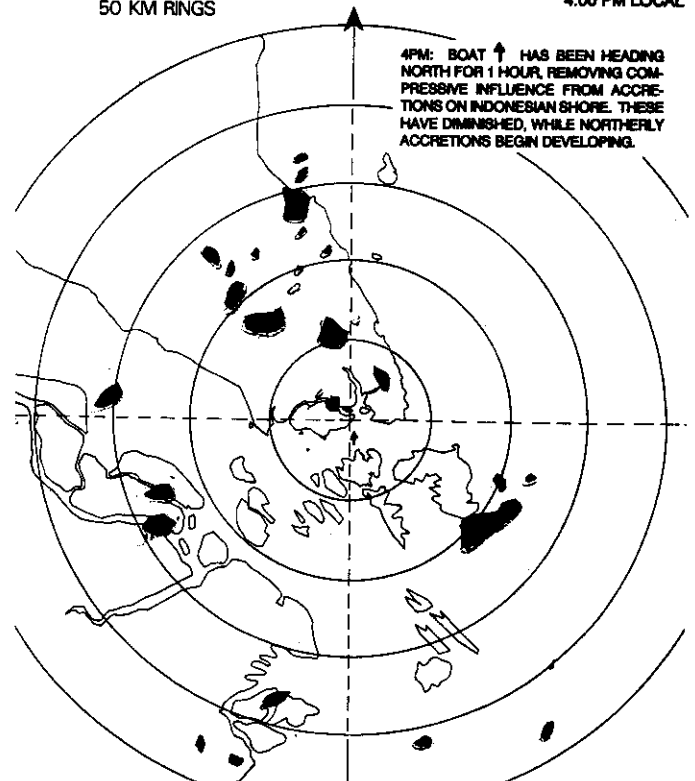


METEOROLOGICAL SERVICE
SINGAPORE

WEATHER RADAR WATCH
50 KM RINGS

DATE: 22 JULY 88

TIME: 0800 UTC
4:00 PM LOCAL



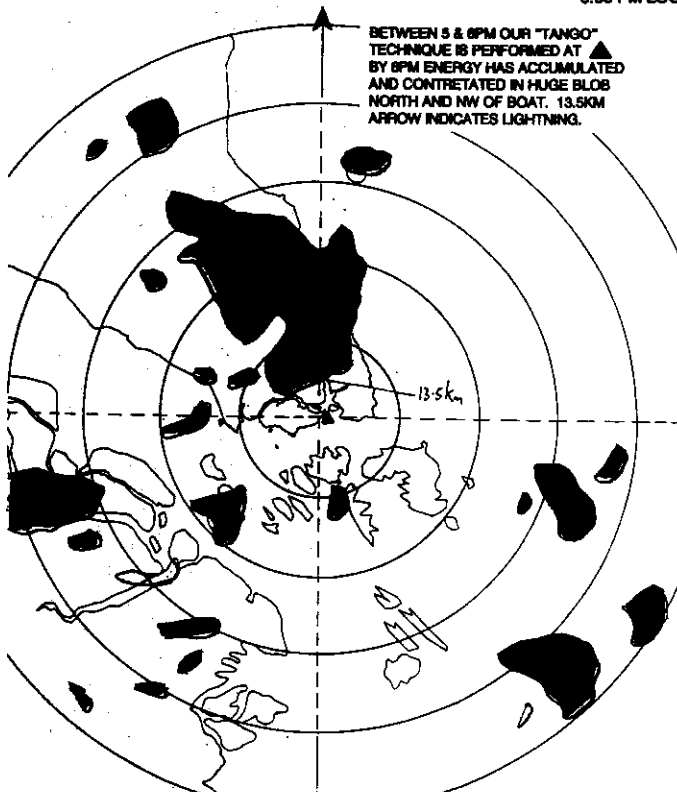
THE CENTER OF THE RADAR DISPLAY IS AT CHANGI INTERNATIONAL AIRPORT AT THE EASTERN END OF SINGAPORE ISLAND

METEOROLOGICAL SERVICE
SINGAPORE

WEATHER RADAR WATCH
50 KM RINGS

DATE: 22 JULY 88

TIME: 1000 UTC
6:00 PM LOCAL



METEOROLOGICAL SERVICE
SINGAPORE

WEATHER RADAR WATCH
50 KM RINGS

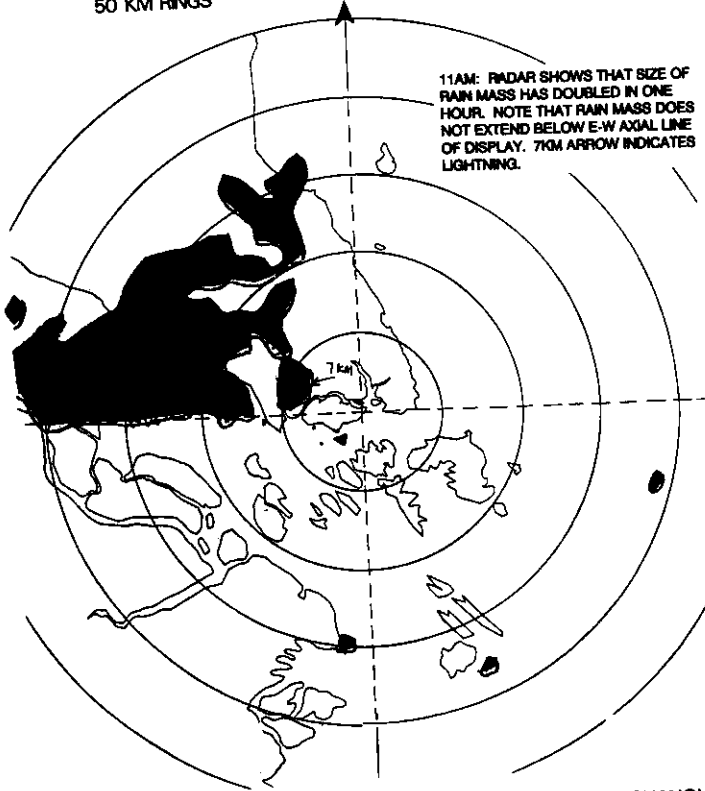
DATE: 22 JULY 88

TIME: 1100 UTC
7:00 PM LOCAL



METEOROLOGICAL SERVICE
SINGAPORE
WEATHER RADAR WATCH
50 KM RINGS

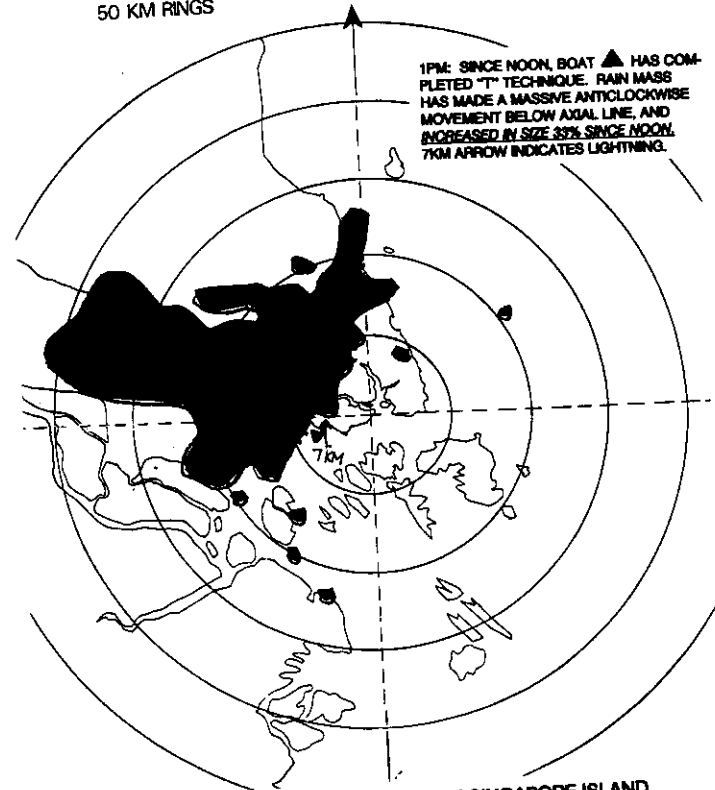
DATE: 26 JULY 88
TIME: 0900 UTC
11:00 AM LOCAL



11AM: RADAR SHOWS THAT SIZE OF RAIN MASS HAS DOUBLED IN ONE HOUR. NOTE THAT RAIN MASS DOES NOT EXTEND BELOW E-W AXIAL LINE OF DISPLAY. 7KM ARROW INDICATES LIGHTNING.

METEOROLOGICAL SERVICE
SINGAPORE
WEATHER RADAR WATCH
50 KM RINGS

DATE: 26 JULY 88
TIME: 0600 UTC
1:00 PM LOCAL

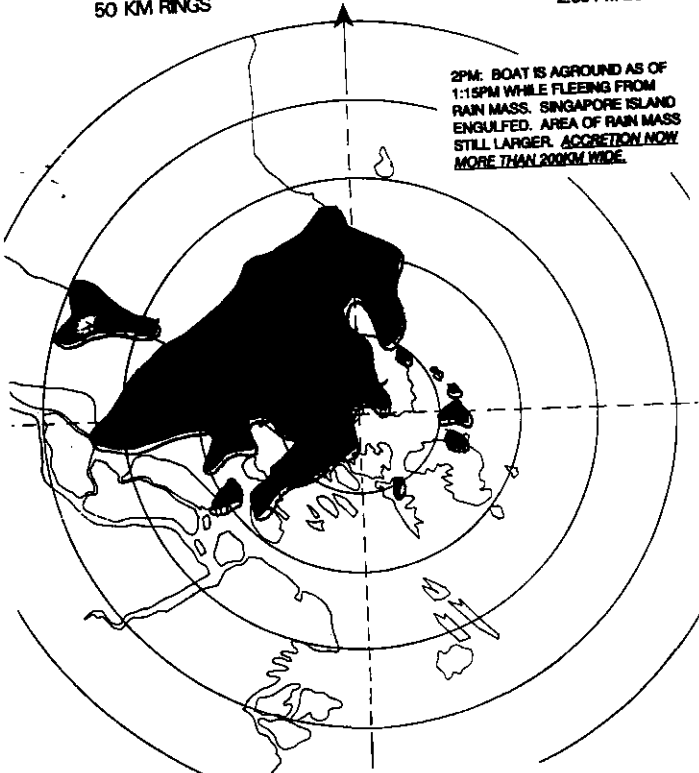


1PM: SINCE NOON, BOAT ▲ HAS COMPLETED "T" TECHNIQUE. RAIN MASS HAS MADE A MASSIVE ANTICLOCKWISE MOVEMENT BELOW AXIAL LINE, AND INCREASED IN SIZE 35% SINCE NOON. 7KM ARROW INDICATES LIGHTNING.

THE CENTER OF THE RADAR DISPLAY IS AT CHANGI INTERNATIONAL AIRPORT AT THE EASTERN END OF SINGAPORE ISLAND

METEOROLOGICAL SERVICE
SINGAPORE
WEATHER RADAR WATCH
50 KM RINGS

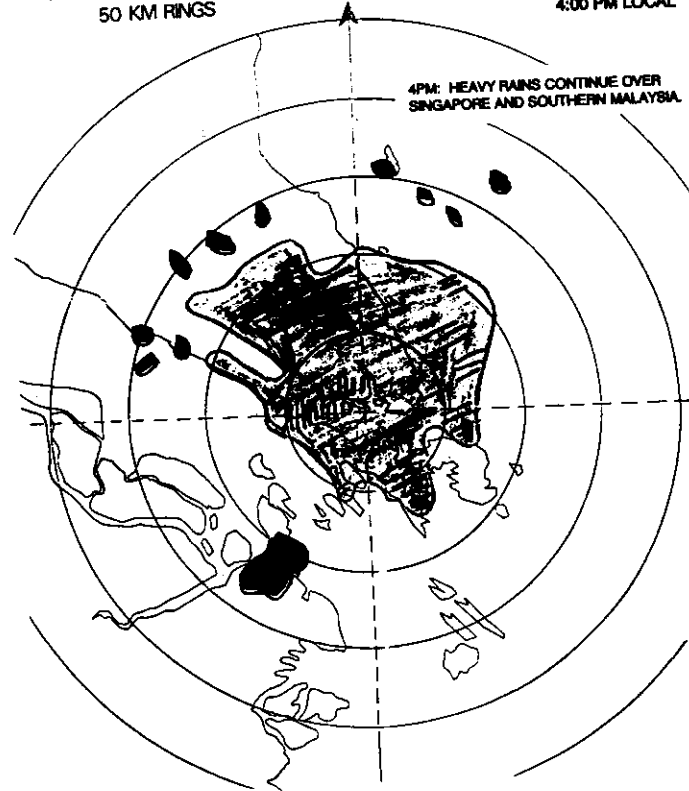
DATE: 26 JULY 88
TIME: 0800 UTC
2:00 PM LOCAL



2PM: BOAT IS AGROUND AS OF 1:15PM WHILE FLEEING FROM RAIN MASS. SINGAPORE ISLAND ENGULFED. AREA OF RAIN MASS STILL LARGER. ACCRETION NOW MORE THAN 200KM WIDE.

METEOROLOGICAL SERVICE
SINGAPORE
WEATHER RADAR WATCH
50 KM RINGS

DATE: 26 JULY 88
TIME: 0600 UTC
4:00 PM LOCAL



4PM: HEAVY RAINS CONTINUE OVER SINGAPORE AND SOUTHERN MALAYSIA.