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Comments on Pate and Palmer Study:

1. "Casual statistical analysis of available weather records lead more often than not to erroneous operational conclusions". (Question the 'more often than not' and comment - and yet operations seem to get done.)
2. Question the statement "Operational weather requirements have been imposed in overseas test operations which are inherently inconsistent, almost mutually exclusive, and capable of realization only for short periods separated by long intervals."
3. "It is entirely possible that a high yield detonation can 'trigger' a self-sustaining circulation which will derive its energy through the condensation process." Comment -- May be true in the sense that 'nothing is impossible' but proof does not exist.
4. Question the statement "Analysis of bomb cloud dynamics points to the reason for the inadequacy of present techniques in high yield cloud sampling: during the early stage of cloud formation, much bomb material is available at lower altitudes, but severe turbulence forms an insurmountable obstacle to the use of manned aircraft; at later states, when turbulence has subsided, continued development of the torus ring structure of the cloud has forced the bulk of the bomb material into the stratosphere.
5. "The detonation of mike and king induced spectacular and widespread weather changes which persisted for several hours." Comment -- Note that the proposal to detonate king on the original K-day also produced widespread and unpredicted weather changes.
6. "Analysis of smoke-puff photographs from the Tumbler 3 test demonstrates that a near-idealized torus ring circulation is established with relatively low bomb yields." Comment -- I agree but this observation is not new.
7. "Assuming delivery to a location in the high latitudes with a low stratosphere, such as Russia during winter, the size and thickness of the generated cloud would probably produce a large obscured area on the radar scope of any following aircraft engaged in the destruction of the same or an adjacent target." Comment -- Is this conclusion on a high latitude, low stratosphere, continental, winter situation based on our tropical high stratosphere, mid ocean, fall situations? Suggest that author reread page 1 of report.
8. Page 1 - Question statement of "recent weapon tests by the United States Armed Forces".
9. Page 8 - Question the following statements: "In the past there has been a tendency in planning the more complicated operations to assume that the wind systems aloft are associated only at random with cloud and weather. For example, there have been requirements in past operations that the winds over the Marshall Islands up to 40,000 feet be, in the period following a detonation, from the southeast or south."

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Location LANL

Collection Records Center - C2, 099

Folder Pate - Palmer Weather

Paper

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C. W. W. 4/1/83
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J. Diaz 9/4/85
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10. "An experienced meteorologist, who has spent a long time studying cloud forms in the tropics, might make forecasts of these elements as much as an hour in advance. To expect more than this is to expect the impossible."
Comment -- 9 9 Who could ask for anything more o/o

11. "In summary, God did not design the tropical atmosphere to AEC specifications." ???

12. "King was a spectacular producer of 'home-made' weather. Although no rain showers were observed within a radius of at least one hundred miles at Eniwetok just prior to shot, scattered showers were observed on the USS Estes about ten minutes after observation, and scattered precipitation was observed in all quadrants (especially to SE and SW) during the remainder of the day.
Ogle comment -- Seems to me this was true on many days when King was not fired.

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