

December 10, 1970

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Dear Julian:

In reply to your letter of November 15 I have the following comments:

Page 1, footnote 1: Have you run across the statement that Admiral Leahy, President Roosevelt's military advisory once criticized a proposal for chemical anticrop as " . . . violating every Christian ethic that I know."

Page 3, second paragraph, line 19: At the start of 1964 the Ranchhand Base was at TonSon Nhut. In mid-1964 an additional base was established at Da Nang.

Line 24: The C123 pilot is instructed to fly at 130 knots, not 150.

Page 4, paragraph one, last two sentences: C123 aircraft were used for crop destruction and for defoliation. They were U. S. aircraft with interchangeable insignia. For defoliation U. S. insignia were used. For crop destruction these were replaced with Viet insignia.

Page 5, paragraph three, first sentence: Your references to cutbacks should be carefully checked. Your figures on page 10 do not reflect a 35% cutback for 1969. Unfortunately, I do not have any good references on this point, however, the New York Times article earlier this year was filled with errors exaggerating the "cutback."

Page 6, paragraph 1: I do not understand how you arrived at the figure 56,000 tons.

Page 13, last sentences: My own impression when speaking to military personnel in Vietnam is that many of them are not sure of the effectiveness of herbicides.

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It is important to distinguish three roles in which herbicides are used. First, along lines of communication and defensive parameters. One high official expressed the opinion that for this purpose ~~that~~ herbicides are largely a failure. The reason is that the remaining branches, stems, and trunks substantially limit visibility. Indeed, visibility is often extended to approximately the accurate range of enemy small arms, a very undesirable result. On lines of communication and parameters, herbicides have been almost entirely replaced by plowing, diesel oil applications, ~~or~~ hand clearing. <sup>with fire.</sup> The second use for herbicides is for crop destruction. There is extreme skepticism regarding the military utility of this program among many high government officials in Vietnam. Furthermore, there is no doubt that it imposes very serious costs of its own. My own opinion is that it continues under its own momentum, independent of any rational analysis. Finally, herbicides are used to clear large forest areas. I do not have any analytical information regarding the effectiveness of this tactic. Its advocates claim that it helps reveal enemy fortifications depots and supply lines. Its critics argue that it is too slow to act and too quick to be undone by regrowth to have more than marginal effectiveness, given the ability of the enemy to keep shifting his operations. *After all, war zones C+D, although repeatedly sprayed and rather dense Saigon, still belong to the enemy.*

Page 14: Here and elsewhere you quote from the Carnegie Symposium. It is important that you quote only from the final, edited version. I will send you copies of all the papers within a week. All but Brown are enclosed. The Blumenfeld and Meselson paper should not be referred to as ARPA-Carnegie as you do on pages 22, 24, 25, 27, 28, 31, 36, and possibly elsewhere.

Pages 18 and 19: So far as I know your history of the strategy of crop destruction is based on inference. Although the movement of populations may well have been an objective early on, Robert Komer writes in a comment on the Carnegie Symposium that it was not an objective. I presume this at least covers the period of his ambassadorship in Vietnam.

Page 19, paragraph three and four: I know of no published reference for your statement that the VC-NVA grow one percent of their food in-country. However, one calculation that can be made with published data is the total number of man-years of food that have been destroyed by the crop destruction program. Making reasonable estimates for the yield of sprayed crop land and the daily Vietnamese diet one concludes that on the order of more than a million man-years of food have been destroyed under the program. Obviously the main impact has been on civilians since even if say ten percent (a very high value) of VC-NVA is grown in-country expressly for their consumption there are simply not enough enemy soldiers in Vietnam to account for anything but a small proportion of the total food destroyed. The most badly affected civilians are

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almost certainly Montagnard tribesmen. This may be concluded from the fact that crop destruction has been largely confined to the northern three tactical corps zones and generally kept away from coastal regions. *Thus it takes place where the Montagnards, estimated at up to one million in numbers*  
Page 25, paragraph one, line 3: Bien Hoa. *line*

Page 27, paragraph two: I have never before heard of agent CD-1.

Page 31, paragraph two: Not having your reference list, I cannot tell whether reference 598 establishes the existence of an ARPA study.

Table 2.7: I do not understand how the weight of active ingredients per gallon of orange can be greater for D than for T. Perhaps you are referring to acid equivalent.

As you probably already know, it has been reported that Portugese aircraft have recently been spraying herbicides on Cassava crops in nationalist-held regions of Angola. See the New York Times for December 9. I have looked into this and am essentially certain that it is true.

With warm regards.

As ever,

Matthew Meselson

MM:mcm  
Enclosures