

Nate:

In reviewing the Stelman Article in Nature, April 2003, it becomes obvious that proper consideration had not been given to several important factors. I believe that you and the other members of the team should consider the following:

1. In calculating exposure of a specific point in the period of mid-1964 thru early 1965 RANCH HAND used two different dispersal systems. The older original MC-1 system was capable of spraying only about 1.5 gallons per acre while the newer A/A45-Y system output was approximately 3 gallons per acre, the amount calculated to provide adequate damage to vegetation in order to achieve the required improvement in ground-level and air-to-ground visibility. In order to achieve a proper burn when using the older system RANCH HAND either had to make two passes over the same ground track during the single mission, which was highly dangerous to the spray aircraft because the enemy could easily anticipate the second pass, or they could schedule consecutive missions over the same track on two- or three-day intervals, which was equally dangerous for the same reason. It was these dangerous alternatives which resulted in the development of the A/A45-Y system in order to avoid the need for a second pass. The first use of the A/A45-Y system occurred on 15 August 1964. New UC-123s arriving in-country after this had the new system installed before movement to Vietnam. Modification kits for the aircraft already in Vietnam were shipped to Vietnam and installed as the aircraft and manpower were available. By April 1965 all UC-123s were equipped with the A/A45-Y system.
2. Neither DAARs nor HERBS tapes provide any indication of which system was operating on any one mission or on any particular aircraft on a mission. Thus it is impossible to accurately determine the amount of herbicide exposure received by any specific geophysical point along the spray tracks of missions flown during the approximate 9 month period.
3. The number of acres sprayed on a mission was not indicated on the DAARs or in the electronic message used to report the daily activity of the spray unit which was forwarded to the several higher headquarters and supervisory units. The number of acres sprayed was later determined by calculation by the personnel responsible for translating the original DAARs into the HERBS tapes, apparently by using "trac" lengths which were themselves products of calculation or measurement on maps using the UTM coordinates given in the original DAARs. However, when calculating the number of acres sprayed by using either data method there is no indication of whether the spray trac received a single pass or a double pass when the aircraft were equipped with the MC-1 system