

Column Codes & Usage

RANCH HAND Revised (RHR) Tape (Fixed-wing Data Only)

Compiled by Paul F. Cecil, 1 June 2005; Revised 10 August 2006

Column	Description	Format/Codes
A	Date	MM/DD/YYYY
B	Lift Designator	"A, B, C, D, E, F" normally initiated from Tan Son Nhut until October 1966, then from Bien Hoa; "H, I, J, K" normally initiated from Da Nang. "A, B" from Phan Rang after 20 July 1970. A number (1 thru 9) indicates lift designator unknown due to non-availability of supporting Daily Air Activity Report (DAAR). Each unknown mission numbered sequentially per day per order in original HERBS Tape.
C	Time-on-target	Time in local 24-hour format when formation actually started initial spray run.
D	Corps Tactical Zone	1 = I Corps – Northern area to Demilitarized Zone (5 Provinces + Hue & Da Nang) 2 = II Corps – North Central area (12 Provinces + Dalat & Cam Ranh) 3 = III Corps – South Central area (12 Provinces + Saigon & Vung Tau) 4 = IV Corps – Southern area (16 Provinces + Mekong Delta) 5 = Laos, North Vietnam, and Demilitarized Zone (DMZ) 6 = Cambodia 7 = Over water
E	Project Number	First two numbers – 02 indicates primarily a Crop Project, 20 a Defoliation Project Third/Fourth numbers – Sequential Project number within fiscal year Fifth/Sixth numbers – Fiscal Year project was authorized Note 1: May be abbreviated to first four numbers (xx-xx) as in original DAAR Note 2: Complete Project Number used includes the CTZ in column C above
F	Incident/Revision Codes	E = Aircraft crashed with at least partial load of herbicide on board L = Herbicide leak outside target area R = Wrong Target Sprayed Z = Emergency Herbicide Dump O = Sprayed outside of planned target coordinates c = One or more items on data line corrected due to error on original HERBS Tape d = No Daily Air Activity Report available to verify HERBS mission data entry

x = Mission data entry added, not on original HERBS Tape
p = Corrected CTZ, Province, or Project data resulting from replot of coordinates

G	Target Identifier(s)	Separate target number(s) or codes identifying specific target(s) within a project boundary (see Column D); "HP" = "Hip Pockets"; column may be left blank (Column previously used for Application Method)
H	Leg Designators	Number/letter designators for beginning, ending, and turn points that describe spray track, or that describe the boundaries of a target "box" (normally for crop targets)
I	UTM Coordinates	Universal Transverse Mercator coordinates of the given leg points (LLxxxyyy), where LL is the grid designator, xxx is the x-coordinate, yyy is the y-coordinate; the x and y coordinates have one decimal point implied (i.e., xxx means xx.x km). Note 1: Some original entries did not include the decimal point (LLxxyy). Note 2: Grids beginning with "Z" and "A" do not have full x-coordinate range, for example: ZV includes only 000 to 245 and matching AQ includes only 750 to 999.
J	Herbicide Agent Used	K = Pink, P = Purple, O = Orange I or II, B = Blue, W = White, U = Unknown
K	Herbicide dispensed	Total chemical dispensed in gallons by all effective aircraft on the mission
L	Scheduled Aircraft	Number of aircraft (sorties) originally scheduled for mission
M	Aircraft Airborne	Number of aircraft (sorties) that launched (took-off) on mission
N	Effective Aircraft	Number of aircraft (sorties) that dispensed herbicide on target
O	Mission Type/Purpose	P = Perimeter Spraying; D = Defoliation; C = Crop Destruction; U = Unknown.
P	Province	South Vietnam Province code, per original HERBS Tape code Laos Province code: L = any; L1 = Steel Tiger North, L2 = Steel Tiger South North Vietnam code: N = any
Q	Track	Spray track length calculated to nearest kilometer ($x^2 + y^2 = \text{length}^2$), except where indicated as recalculated to nearest 0.1 kilometer For track involving UTM grid squares beginning with letters "Z" and "A," x-axis track length is determined by physical measurement from map plot

NOTE: Track lengths in excess of 18 kilometers likely indicate spray was not continuous over the entire track, such as when spraying crop or locating trails

R	Width	Width of spray track calculated to nearest whole meter by # effective aircraft, where aircraft spray width = 80 m. and effective wingtip vortex spray = 20 m. when there is a spray aircraft on both sides of wingtip vortex. [Presently left blank]
S	Acres	Calculated acres sprayed with herbicide, to nearest whole acre (width in meters times length in meters = total sq meters / 4047) [Presently left blank or as original HERBS]
T	Aborts, sorties	Aircraft aborts by type and number, where: A = Air abort G = Ground abort M = Abort due to maintenance non-delivery W = Abort due to weather B = Abort due to previous battle damage to aircraft S = Abort due to failure of support services O = Abort due to other reasons ? = Abort due to unknown cause +# = Indicates number of aircraft added to original mission schedule at last minute Note: For "sympathetic" aborts see REMARKS column details below.
U	Cancellation, Primary	Reason for Primary target cancellation, where: 1 = Weather, general (at target, in route, or at a launch base) 2 = Temperature and/or winds in target area above allowable spray limits 3 = Friendly troops in target area or fire-on-fire clearance not authorized 4 = Cancelled by Direct Air Support Center (DASC), reason not given 5 = Cancelled by Tactical Air Control Center (TACC), reason not given 6 = FAC not available on target or not in communication contact 7 = Fighter escort not available on target or unable to remain for entire spray run 8 = Cancelled by specific US military field unit, reason not given 9 = Cancelled by ARVN field unit or Province official, reason not given 10 = Due to earlier aircraft battle damage or enemy high threat in target area 11 = Due to non-availability of aircraft or aircraft maintenance malfunction 12 = Due to other than above reasons 13 = Cancelled or Not Authorized by Allied Higher Headquarters 14 = Never originally approved/scheduled 99 = Unknown cause and source

V	Cancellation, Secondary	Reason for Alternate target cancellation coded same as Column T coding above
W	Flying Hours	Total flying time on mission logged by all mission aircraft that became airborne
X	Ground fire Hits	Total reported hits from ground fire by all aircraft on mission. A "0" indicates that ground fire occurred during mission, but no hits were reported on spray aircraft.
Y	Special Items	m = mixed loads of herbicide, s = sympathy abort by in-commission aircraft
Y	Remarks	1p, 2p, 3p indicates that original DAAR shows # passes on given track 2pe, 3pe or ep2, ep3 indicates author assumes # multiple passes due to track length vs gallons dispensed. "symp" indicates sympathetic abort due to abort of lead aircraft or because another abort leaves the formation with less than two aircraft. Any other explanatory remarks