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**Report/Article Title** Manuscript: Notes regarding exposure of military personnel to Herbicide Orange

**Journal/Book Title**

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**Number of Images** 9

**Description Notes**

- A review of operations involving HD reveal that there were two groups of US military personnel potentially exposed to HD:

2 \* Handlers & Dispensers

1 \* Ground Personnel not acting in

- Each group is treated separately as their respective degrees of potential exposure differ.  
routes of exposure

○ Here or elsewhere mention long-term experience  $\bar{c}$  T (TCDD)  
- Recent years' U.S. applications of D&T

# Ground Personnel

Exposure to ground personnel who were ~~did~~ not actively engaged in handling operations could have occurred by

- 1 - Being under direct spray
- 2 - entering an area previously treated
- 3 - ingestion of contaminated foods.  
hand to mouth.

inhalation & skin absorption

# Direct Spray on individual

1) Discuss those factors that mitigate this type of exposure extracted from Ch 1 & Ch 3

Concept of Op

- ~~Exposure~~  
- Time of day  
- Objectives of spraying - to provide cleared areas. - US mil personnel not expected to routinely be there

Other types of exp. CS smoke insect.

- Canopy penetration. 6%  
person likely to avoid direct spray -  
- US mil personnel enter only after several weeks

- Env. fates of material. degraded photolysis.

TCDD  
HO = 2ppm  
HP = 30ppm

- Purple use early (1/3 of Total TCDD) over small area w/ few numbers of US people during period

✓ - Point out that entry after spray would be far less exposure than directly under spray.

over →

clothing

Inhalation

— 1 Menton RPAR  
    & Calc's

prop us,  
~~retrospec~~

The possibility of ingestion in this group is slight —

- Amount of crops sprayed 8%
- US mil. personnel could have consumed some cont. foods but levels would have been slight and unknown.
- Probably only fruits

Photo decomp.

- Lang's data —  
how much food need to eat.

# handlers / Dispensers

include Eglin  
test programs

Outline numerous test programs  
refer Table 8.

Inhalation

Ground operations would have been  
similar to Paper H/D  
dedrumming ops. excellent IH monit data

No TCDD detected

D & T levels far less  
than TLI's

Med records reviewed

Skin

Some exposure to skin could  
have occurred.

Low % of absorption however.  
along with Ch 6.

- Guidance called for standard  
precautions  
gloves, aprons ~

Airborne ops would be  
similar —

Inhal. - - Air movement in a/cft

Skin - - Probably greater skin exposure  
leaks, sprays.



Military personnel  
test program routine  
Physicals, certainly  
any systemic symptoms

Refer to RPAR approach  
determining show dates

2)  
Time Data not supported

- Discuss likely effect  
Symptoms, ~~and~~

- Ch 4 & Ch 5 & Ch 6 say that  
in absence of chloroacetaldehyde  
systemic symptoms unlikely to  
occur.

- Even had chloroacetaldehyde occurred and  
gone unnoticed and  
some systemic ~~was~~ reactions  
occurred, they would have  
likely cleared by now and  
any symptoms, <sup>now</sup> are probably due  
to some other etiology other  
than HD in RVN

- Exposure levels even in worst  
case probably below those  
noted in industry and below  
those levels used in studies  
where no effect noted.

Psychology —

Assembly - Line Hysteria