DETAILED FALLOUT PREDICTION WORKSHEET - SURFACE BURST

AUTHORITY: TM 3-11.32 /MCRP 10-10E.5/NTRP 3-11.25/AFTTP 3-2.56

Note. Complete the worksheet to prepare Chemical, Biological, Radiological, and Nuclear (CBRN) 3 Nuclear (NUC) report. *(Line out unused unit of measure in far right hand column.)*

ITEM			
a	Time of burst		DELTA *(DD TTT MMM YYYY) local or ZULU time)*
b	Ground zero (GZ) coordinates		FOXTROT yyzzzzzz *(actual or estimated)*
c	Fission yield/total yield *(FY/TY)* ratio *(from target analysis for strike warning [STRIKWARN] only) (If known, enter number. If unknown or for threat incident, enter "1.")*		
d	Height of burst (HOB) *(from target analysis for STRIKWARN only). (If known, enter number. If unknown or for threat incident, enter "0.")*		Meters or thousands of feet
e	Yield		Kiloton or megaton
f	Cloud-top height (from Stabilized Cloud and Stem Parameters nomogram)		Kilometers or thousands of feet
g	Cloud-bottom height (from Stabilized Cloud and Stem Parameters nomogram)		Kilometers or thousands of feet
h	2/3 stem (from Stabilized Cloud and Stem Parameters nomogram)		Kilometers or thousands of feet
i	Stabilized cloud radius (from Stabilized Cloud and Stem Parameters nomogram)		PAPAB-rr* *(kilometers) (round up to the nearest whole number)*
j	Time of fall from cloud-bottom (from Stabilized Cloud and Stem Parameters nomogram)		Hours *(express minutes as decimal for use in equation l)*
Note. Plot items f, g, and h on the current wind vector plot. Measure distance from GZ to the cloud-bottom height.			
k	Radial line distance from GZ to cloud-bottom height.		Kilometers
l	Effective wind speed = GZ to cloud bottom distance (item k) / time of fall (item j) = _____ kilometers per hour		PAPAB-sss* *(kilometers per hour) (round to the nearest whole number)*
m	Downwind distance of Zone I (enter Determination of Zone I nomogram with items e and l)		PAPAB-xxx* *(kilometers) (round to the nearest whole number)*
n	Adjustment calculation of downwind distance of Zone I. FY/TY factor (item c) __ x HOB (item d) _ = _ If known or friendly Enter nomogram with items c and e or use 1 (Use FY/TY yield adjustment factor nomogram) If known or friendly Enter nomogram with items d or e or use 1 (Use HOB adjustment factor nomogram for yield 5100 kilotons or megaton yield >100 kilotons)		If unknown or threat it should be 1x1. It cannot equal 0.
o	Adjustment of downwind distance of Zone I (item m x item n)		PAPAB-xxx* *(kilometers) (round to the nearest whole number)*
Note. Ensure all vectors are included. Lateral limits of radial lines must be at least 40 degrees. If not 40, bisect angle and add difference to each side.			
p	Azimuth of left radial line		PAPAB-dddd* (mils or degrees)
q	Azimuth of right radial line		PAPAB-cccc* (mils or degrees)
r	CBRN 3 NUC Report ALPHA (AAA) DELTA (DD TTTT MMM YYYY) FOXTROT HOTEL /SURF// PAPAB (sss xxx rr dddd cccc)*		(Strike serial number) (Local or ZULU time) (Actual or estimated) (Type of nuclear burst) (Azimuths of radial lines) (mils or degrees)

***sss** --effective wind speed; xxx --downwind distance Zone I; rr --cloud radius; dddd --L radial line; cccc --R radial line