

FORCE PROTECTION (SAFETY) ASSESSMENT PROCEDURE



May 1997

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1. General.

a. Objective of the assessment is to identify unit strengths and weaknesses in force protection (safety) and risk management and to produce recommendations for sustainment or improvement in these areas.

b. The assessment procedure and tools presented below are also described in pages 6-9 of the Center for Army Lessons Learned (CALL) Newsletter, “Risk Management for Brigades and Battalions”, Jun 95.

c. The assessment will help your unit to identify:

(1) Who will probably have the next accident (individual soldiers and unit elements).

(2) What kind of accidents will probably happen (METL task, type accident and reasons/sources of the accident cause factors).

(3) What to do about it (commander’s guidance and improvements in SOP, training, support, standards enforcement and guidance for soldiers).

d. The assessment tools should be administered to as many of the unit’s soldiers/leaders as time and availability permit. Minimum recommended sample of soldiers and leaders is 33% at each echelon from Platoon to Brigade.

2. Commander’s Force Protection (Safety) Guidance. Check unit quarterly training guidance to ensure that goals, objectives and priority actions (*see example at encl 1*) adequately address unit’s past accident experience (*see example at encl 2*).

3. Force Protection (Safety) Study Guide for National Training Center Rotations (Ground Operations) * and Quizzes (Ground and Aviation). *{Guide is based on accident experience and force protection (safety) guidance applicable to NTC rotations. Results of quiz allows commanders and leaders to focus pre-deployment safety training on what soldiers do not know. Objective is to reduce safety violations and resulting accidents during train-up and rotation.}*

a. Administering quiz. Aviators complete both the ground and aviation quizzes. All others complete only the ground quiz. [*Note: Instruct soldiers to mark only on the answer sheet so that the quiz booklets can be used again, and to ‘black out’ the answers to allow grading with an answer key template*].

*** Sufficient quantities will be provided to each unit in advance of the assessment.**

(1) Ground Safety Quiz .* Administer to soldiers and leaders, including aviators.

(2) Aviation Safety Quiz .* Administer to aviators only (do not include crew chiefs, flight engineers, etc.).

b. Compiling quiz results

(1) Grade quizzes using the answer key. *{encl 3 (ground) or encl 4 (aviation)}*

(2) For each individual, identify the number of questions he/she missed and find the percent correct score using the table at *encl 5 (ground) or encl 6 (aviation)*.

(3) Tally each unit's results for each question on the worksheets at *encl 7 (ground) or encl 8 (aviation)*. This means write in the number of soldiers who missed the question and the total number of soldiers who answered the question. Compute the percentage missed on each question by dividing the total number of soldiers who missed by the total number of soldiers who answered the question. *{Examples at encl 9 (ground) and 10 (aviation)}*

(4) Identify the top ten questions missed and the highest, lowest and average scores *{examples in encls 11 (ground) & 12 (aviation)}*. Leaders should focus awareness training on areas represented by the most frequently missed questions. Information about each safety area is in the NTC Study Guide, which should be distributed to each leader at platoon level and above.

4. Next Accident Assessment. *{Based on the five reasons for human error accidents.}*

a. Administering Next Accident Assessment.

(1) Next Accident Assessment for Individuals * *{ A self awareness tool, designed for soldiers at all levels, which identifies factors responsible for accident risk.. Also includes questions (to be turned in) regarding actions the soldier will take to reduce personal accident risk and chain-of-command actions needed to help reduce soldier's risk}:*

- Administer to all soldiers/leaders, except aviators {see para 5a(2) for aviator assessment}. Advise soldiers that the assessment will not be turned in. Have them return only the page with the questions regarding actions they promise to take and actions they request the chain-of-command to take to reduce their accident risk.

*** Sufficient quantities will be provided to each unit in advance of the assessment.**

(2) Next Accident Assessment for Aviators * *(A self-awareness tool, designed for aviators at all levels, which identifies factors responsible for accident risk. Also includes questions (to be shared with command) regarding actions the soldier will take to reduce personal risk and chain-of-command actions needed to help reduce the soldier's risk}:*

- Only aviators will complete this version. [Note: Crew chiefs, flight engineers, etc. will complete the version for Individuals]. Advise aviators that the assessment will not be turned in. Have them return only the page with the questions regarding actions they promise to take and actions they request the chain-of-command to take to reduce their accident risk.

(3) Next Accident Assessment for Leaders * {A risk management tool used by leaders to assess the accident risk of each soldier they supervise and the reasons for that risk. Summary sheet can be placed in the leader book for use in counseling and monitoring risk reduction progress}:

- Have leaders complete this assessment for the soldiers they rate (example worksheet is at encl 13). That is, soldiers for whom they serve as first-line supervisor. Have leaders turn in the completed assessments.

(4) Next Accident Assessment for Leaders of Aviators * {A risk management tool used by leaders to assess the accident risk of each aviator they supervise and the reasons for that risk. Summary sheet can be placed in the leader book for use in counseling and monitoring risk reduction progress}:

- Have the leaders complete this assessment on the aviators they rate (example worksheet is at encl 14). That is, only those aviators for whom they serve as first-line supervisor. Have leaders turn in the completed assessments.

b. Compiling Next Accident Assessment results

(1) Next Accident Assessment for Individuals/Aviators - Summarize similar responses to “Actions I will take to reduce my accident risk”. List the grouped “actions” promised in order of frequency from highest to lowest (see the “top ten” example at encl 15).

(2) Next Accident Assessment For Leaders/Leaders of Aviators -

(a) Summarize similar responses to “Chain-of-command actions needed to reduce my accident risk”. List the grouped “actions” requested in order of frequency from highest to lowest (see the “top ten” example at encl 16).

*** Sufficient quantities will be provided to each unit in advance of the assessment.**

3

(b) Summarize the assessment results as shown in the examples at enclosures 17 (ground) & 18 (aviation). Indicate the number of soldiers/aviators assessed and the number of leaders who assessed them, and the percent of soldiers/aviators at each risk level.

5. Mission essential task list (METL) Accident Risk Assessment. {Permits the unit commander to compare his/her estimate with that of his/her senior soldiers and determine the reasons for any differences. Averaging the estimates permits a risk ranking of the METL tasks

and “worst first” risk management actions. It also emphasizes the need to identify controls for hazards in executing each METL task, regardless of the initial risk level.}

a. Administering METL Accident Risk Assessment.

(1) List all METL tasks to be executed during the NTC rotation on the worksheet at *encl 19 (TF XXI METL is shown at encl 20)*.

(2) Provide the assessment worksheet to Company Commanders, 1SGs and above. Instruct them to estimate the accident risk in each METL task and to explain the reason for all “High” and “Extremely High” risk ratings. Have them turn in their assessments.

b. Compiling METL Accident Risk Assessment results.

(1) Compute the weighted average for each METL task by doing the following:

(a) Multiply each rating (*Low = 1; Moderate = 2; High = 3; Extremely High = 4*) by the number of people who chose that rating.

(b) Add up the total points.

(c) Divide the total points by the total number of people who rated that task (do not include unknown or not applicable responses). This is the weighted average.

EXAMPLE (see *Encl 21*): A total of 72 people rated the METL task, “Deploy the brigade”. Thirteen of these people assigned a ‘low’ rating, 20 assigned a ‘moderate’ rating, 34 assigned a ‘high’ rating and 4 people assigned an ‘extremely high’ rating.

Multiply the number of people times the rating and add together:

$$(13 \times 1) + (20 \times 2) + (34 \times 3) + (4 \times 4) = 13 + 40 + 102 + 16 = 171$$

Next, divide this sum by the total number of people who rated this task: $171 \div 72 = 2.38$

The weighted average for “Deploy the Brigade” is 2.38, which falls in the high risk range.

(2) Show the weighted averages for each METL task by drawing a line, as shown in the chart at *enclosure 22*.

(3) Summarize the reasons cited for high/extremely high accident risk in METL tasks as shown in *enclosure 23*.

6. Conduct group discussions and individual interviews. After completing quizzes, and assessments, conduct a group discussion with soldiers about force protection (safety)/risk management issues. The list at *enclosure 24* is an example of discussion topics. Conduct interviews with commanders and key leaders, based on results from the quizzes, assessments and group discussion.

7. **Write the final report.** Based on the assessment findings, list force protection (safety)/risk management strengths and weaknesses. Make recommendations to sustain or improve these areas.

QUARTERLY TRAINING BRIEFING COMMANDER'S GUIDANCE FORCE PROTECTION (SAFETY)

GOALS: Reduce Accidents By 50% During:

- Support Cycle (Vs. Last Cycle)
- Mission Cycle (Vs. Last Cycle)
- Training Cycle (Vs. Last Similar Cycle)

OBJECTIVES:

•**Minimize Risk To Mission**. Subordinate Commanders, Staff Officers and Leaders will identify and control hazards most likely to reduce combat power by implementing risk management (RM) in the planning, execution and assessment phases of training and operations.

•**Minimize Risk To METL**. Subordinate Commanders, Staff Officers and Leaders will know the unit's risk of having an accident while executing each of the unit's METL tasks and the reasons why. They will also know what the unit is doing to eliminate/control these "reasons why".

•**Minimize Risk To Soldier**. Leaders will know (for each soldier they supervise): The soldier's risk for having an accident, the most likely types of accidents, and what the leader and soldier are doing to reduce the soldier's accident risk.

ENCL 1-1

QUARTERLY TRAINING BRIEFING COMMANDER'S GUIDANCE FORCE PROTECTION (SAFETY) (CONT'D)

PRIORITIES:

- **Integrate Mission RM Procedures.** RM procedures will be integrated into SOPs. Tactical SOP will specifically designate command level authorized to accept each level of accident risk from low to extremely high and will integrate RM procedures into the decision making process. (Support cycle) Effectiveness of RM procedures will be assessed in each AAR, with needed improvements identified and implemented for the next mission (All Cycles).
- **Identify Hazards and Controls for Missions.** S3 (Safety) Officers/NCOs will provide to commanders, staff, and leaders the types of accidents most likely to be experienced by the unit during each mission/tasking along with “reasons why” and controls recommended for each BOS/Staff functional area.

QUARTERLY TRAINING BRIEFING COMMANDER'S GUIDANCE FORCE PROTECTION (SAFETY) (CONT'D)

PRIORITIES:

- **Identify Hazards and Controls for METL.** S3 (Safety) Officers/NCOs will provide to Commanders, Staff and Leaders results of a unit METL risk assessment, along with “reasons why” for each METL task with a risk rating of “high” or “extremely high”. Risk reduction control options will also be provided. (Commander’s Training Assessment)
- **Identify Hazards and Controls for Soldiers.**
 - Leaders will determine the accident risk level of each soldier they supervise, the reasons for the risk level and controls to reduce the risk. Leaders and soldiers will implement control actions within their authority/capability and elevate those beyond own authority/capability. (Individual Soldier Training)
 - Leaders will determine, for each soldier they supervise, knowledge of hazards and safety rules applicable to duties and environments of each cycle. Leaders will develop and execute training for each soldier to achieve a 70% (Go) knowledge standard on a safety quiz. (Individual Soldier Training)

ENCL 1-3

TFXXI TACTICAL GROUND ACCIDENTS FY 92 thru APR 96

HUMAN ERROR PROBLEM AREAS	NUMBER
WHEELED VEHICLE	
Excessive Speed	4
Following Too Close	2
Improper Ground Guiding	2
Failed to Yield Right of Way	1
Improper Turning	1
Unsafe Road Conditions	1
Failed to Chock Vehicle	1
Night/Excessive Duty Hours	1
Other	7
TRACKED VEHICLE	
Rough Terrain	3
Excessive Speed	2
Crew Coordination Commo	2
B-D-A Opn Checks	1
Darkness/Fatigue	1
Other	4
WEAPONS HANDLING	
Unauthorized Use/Handling	1
Carrying/Lifting/Transporting	1
Loading/Arming	1
Disarming/unloading	1
Sighting/Aiming/Firing/Throwing	1
MAINTENANCE	
Improper Use of Tools/Equipment	12
Improper Body Position	3
Improper Push/Pull/Grip/Hold	2
Inadequate Inspection	2
Improper Lifting	1

HUMAN ERROR PROBLEM AREAS (Continued)	
MATERIEL HANDLING	NUMBER
Improper Technique	4
Unsecured/Unstable Load	1
Equipment Usage	1
Improper Body Position	1
COMBAT SOLDIERING	
Traversing Terrain Under Adverse Environmental Conditions	1
Camouflaging: Failing to Maintain 3 Points of Contact	1
Other	2
OTHER PROBLEM AREAS	
	6
TOTAL	74

ENVIRONMENTAL PROBLEM AREAS	NUMBER
Temperature (Heat and Carbon Monoxide)	2

MATERIEL FAILURE PROBLEM AREAS	NUMBER
Track Vehicles (Weld on Deck Hatch Broke)	1

FINDING: Identified problem areas account for 76% of the accidents.
RECOMMENDATION: Focus on these problem areas.

TOTAL	3
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TOTAL 78

ENCL 2

NTC Ground Force Protection (Safety) Readiness Quiz

Answer Key

- | | | | | | | |
|-----|---|---|---|---|---|--|
| 1. | A | B | C | ■ | | |
| 2. | A | ■ | C | D | | |
| 3. | A | B | ■ | D | | |
| 4. | A | ■ | C | D | | |
| 5. | A | B | ■ | D | E | |
| 6. | A | B | C | D | ■ | |
| 7. | A | B | C | ■ | | |
| 8. | A | B | C | D | ■ | |
| 9. | ■ | B | C | D | | |
| 10. | A | ■ | | | | |
| 11. | A | B | C | ■ | | |
| 12. | A | B | ■ | D | | |
| 13. | ■ | B | C | | | |
| 14. | A | B | ■ | | | |
| 15. | A | B | ■ | D | E | |
| 16. | A | B | C | ■ | E | |
| 17. | A | B | C | ■ | | |
| 18. | A | B | ■ | D | | |
| 19. | A | ■ | C | D | | |
| 20. | A | B | C | ■ | | |
| 21. | ■ | B | C | D | | |
| 22. | A | B | ■ | D | | |
| 23. | A | ■ | C | D | | |
| 24. | A | ■ | C | D | | |
| 25. | A | B | C | ■ | | |
| 26. | A | B | C | ■ | E | |
| 27. | A | B | C | ■ | | |
| 28. | A | B | ■ | D | E | |
| 29. | A | B | C | ■ | | |
| 30. | A | B | ■ | D | | |
| 31. | A | B | C | ■ | | |
| 32. | A | ■ | C | D | | |
| 33. | A | ■ | | | | |
| 34. | ■ | B | C | D | | |
| 35. | A | B | C | ■ | | |
| 36. | A | B | C | ■ | E | |
| 37. | A | B | ■ | D | E | |
| 38. | ■ | B | C | D | | |
| 39. | A | B | C | ■ | | |
| 40. | A | ■ | C | D | | |
| 41. | ■ | B | C | D | | |
| 42. | A | B | ■ | D | | |
| 43. | A | ■ | C | D | | |
| 44. | A | ■ | C | D | | |
| 45. | A | B | ■ | D | | |
| 46. | A | B | C | ■ | | |
| 47. | ■ | B | C | D | E | |

National Training Center Aviation Force Protection (Safety) Readiness Quiz

Answer Key

- | | | | | | |
|-----|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. | A | <input type="checkbox"/> | C | D | |
| 2. | A | B | C | <input type="checkbox"/> | |
| 3. | A | B | C | <input type="checkbox"/> | E |
| 4. | A | B | <input type="checkbox"/> | D | E |
| 5. | A | B | C | <input type="checkbox"/> | |
| 6. | A | B | <input type="checkbox"/> | D | |
| 7. | A | <input type="checkbox"/> | C | D | |
| 8. | A | <input type="checkbox"/> | C | D | |
| 9. | A | B | <input type="checkbox"/> | D | |
| 10. | A | B | C | D | <input type="checkbox"/> |
| 11. | <input type="checkbox"/> | B | C | D | |
| 12. | ACFT | | | CAT | |
| 13. | A | <input type="checkbox"/> | | | |
| 14. | <input type="checkbox"/> | B | | | |
| 15. | <input type="checkbox"/> | B | | | |
| 16. | A | <input type="checkbox"/> | | | |
| 17. | <input type="checkbox"/> | B | C | D | |
| 18. | A | B | <input type="checkbox"/> | D | |
| 19. | A | B | <input type="checkbox"/> | D | |
| 20. | <input type="checkbox"/> | B | | | |
| 21. | A | B | <input type="checkbox"/> | D | |
| 22. | A | B | C | <input type="checkbox"/> | |
| 23. | A | B | C | D | <input type="checkbox"/> |
| 24. | A | <input type="checkbox"/> | | | |
| 25. | A | <input type="checkbox"/> | | | |
| 26. | A | B | <input type="checkbox"/> | D | |
| 27. | A | B | C | <input type="checkbox"/> | E |
| 28. | A | <input type="checkbox"/> | C | D | |
| 29. | A | B | C | D | <input type="checkbox"/> |
| 30. | <input type="checkbox"/> | B | | | |
| 31. | A | B | <input type="checkbox"/> | D | |
| 32. | <input type="checkbox"/> | B | | | |
| 33. | <input type="checkbox"/> | B | | | |
| 34. | A | <input type="checkbox"/> | C | D | |
| 35. | <input type="checkbox"/> | B | | | |
| 36. | A | B | C | D | <input type="checkbox"/> |
| 37. | A | B | C | D | <input type="checkbox"/> |
| 38. | A | <input type="checkbox"/> | C | D | |
| 39. | <input type="checkbox"/> | B | C | D | |
| 40. | A | <input type="checkbox"/> | | | |
| 41. | A | <input type="checkbox"/> | | | |
| 42. | A | B | C | <input type="checkbox"/> | |
| 43. | A | B | C | <input type="checkbox"/> | |
| 44. | A | B | C | <input type="checkbox"/> | |
| 45. | A | <input type="checkbox"/> | C | D | |
| 46. | A | B | C | <input type="checkbox"/> | |
| 47. | A | B | C | <input type="checkbox"/> | |
| 48. | A | <input type="checkbox"/> | | | |

GROUND QUIZ
(N = 47)

Questions
Missed Score

- 1 ... 98%
- 2 ... 96%
- 3 ... 94%
- 4 ... 91%
- 5 ... 89%
- 6 ... 87%
- 7 ... 85%
- 8 ... 83%
- 9 ... 81%
- 10 ... 79%
- 11 ... 77%
- 12 ... 74%
- 13 ... 72%
- 14 ... 70%
- 15 ... 68%
- 16 ... 66%
- 17 ... 64%
- 18 ... 62%
- 19 ... 60%
- 20 ... 57%
- 21 ... 55%
- 22 ... 53%
- 23 ... 51%
- 24 ... 49%
- 25 ... 47%
- 26 ... 45%
- 27 ... 43%
- 28 ... 40%
- 29 ... 38%
- 30 ... 36%
- 31 ... 34%
- 32 ... 32%
- 33 ... 30%
- 34 ... 28%
- 35 ... 26%
- 36 ... 23%
- 37 ... 21%
- 38 ... 19%

AVIATION QUIZ

(N = 48)

Questions
Missed Score

1 ... 98%	20 ... 58%
2 ... 96%	21 ... 56%
3 ... 94%	22 ... 54%
4 ... 92%	23 ... 52%
5 ... 90%	24 ... 50%
6 ... 88%	25 ... 48%
7 ... 85%	26 ... 46%
8 ... 83%	27 ... 44%
9 ... 81%	28 ... 42%
10 ... 79%	29 ... 40%
11 ... 77%	30 ... 38%
12 ... 75%	31 ... 35%
13 ... 73%	32 ... 33%
14 ... 71%	33 ... 31%
15 ... 69%	34 ... 29%
16 ... 67%	35 ... 27%
17 ... 65%	36 ... 25%
18 ... 63%	37 ... 23%
19 ... 60%	38 ... 21%

ENCL 6

NTC GROUND FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET

QUESTION		UNIT		
NO.	SPECIFIC TOPIC			
1	Accident casualties			
2	Safety role in combat			
3	Lost in desert			
4	NTC deaths			
5	Risk Mgmt Steps			
6	Risk Mgmt Process			
7	Accident definition			
8	Night vehicle training			
9	Vehicle PMCS			
10	Cold WX fluid intake			
11	Vehicle refueling			
12	Vehicle dismount			
13	Emergency assistance			
14	Ground guide signals			
15	Heater fuel			
16	Driver's PPE			
17	Hot WX fluid intake			
18	Grnd Guide procedures			
19	Cold WX indury prevention			
20	Antenna tip			
21	Tactical speed lmts			
22	Smoking limits			

ENCL 7-1

NTC GROUND FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET (Continued)

QUESTION		UNIT		
NO.	SPECIFIC TOPIC			
23	Track vehicle crossing			
24	Desert survival			
25	Track vehicle intercom			
26	Sleeping areas			
27	Stove requirements			
28	Ammo & explosives			
29	Emergency pyro signal			
30	Acclimatization			
31	Heater training			
32	Transporting personnel			
33	Sleep loss			
34	Last vehicle in convoy			
35	Hearing protection			
36	Marking of sleeping areas			
37	Transporting ammo			
38	NTC driver qualifications			
39	Duds			
40	Effective sleep			
41	Fluid intake (<80 deg)			
42	Hoffman limits			
43	Vehicle safety belts			
44	Firing blanks			
45	Animals/Insects			
46	Accident reporting			
47	Risk assessment			

FNCL 7-2

NTC AVIATION FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET

QUESTION		UNIT		
NO.	SPECIFIC TOPIC			
1	Safety in combat ops			
2	Wartime accident losses			
3	Risk Mgmt steps			
4	Readiness deficiencies			
5	Definition of hazard			
6	NVG blackout ops			
7	Performance planning			
8	NVG flight routes			
9	IMC-related problem			
10	Wirestrike prevention			
11	Onboard survival equip			
12	Aircraft turbulence category			
13	Crew coord - direct assist			
14	Crew advise unsafe situation			
15	H2O & survival vest onboard			
16	NVG currency requirements			
17	Multiship ops approval level			
18	Recompute weight & balance			
19	Terrain flt ops - 25 to 80 ft			
20	Terrain flt ops - >80 ft			
21	Terrain flt ops - up to 25 ft			
22	Flying in MOPP			
23	Minimize brownout			
24	Cold WX fluid intake			

ENCL 8-1

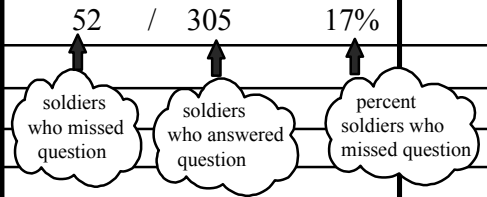
NTC AVIATION FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET (Continued)

QUESTION NO. SPECIFIC TOPIC		UNIT		
25	Battle Rostering crews			
26	NVG training WX restrictions			
27	Loss of grnd references-fog			
28	Improper scanning - nite ops			
29	ATM airspd recs affected by			
30	NVG terrain flt over desert			
31	Inadvertent IMC procedure			
32	Crew rest guide not followed			
33	Crew coordination definition			
34	#1 nite crew error prob area			
35	Channelize attn >3 sec			
36	During nite ops P* should---			
37	NVG ops in desert environ			
38	Alt ref over low contrast area			
39	Optimum moon illum - NVG			
40	False horizons w/NVG			
41	IR light in brownout conds			
42	% of human error RW acdts			
43	% nite aided RW crew error			
44	Army accident definition			
45	IR light req'd during NVG ops			
46	Min daily water intake			
47	Engaged by OPFOR			
48	Crew rest requirements			

ENCL 8-2

NTC GROUND FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET

QUESTION		UNIT		
		TF XXI		
NO.	SPECIFIC TOPIC			
1	Accident casualties	52	/ 305	17%
2	Safety role in combat			
3	Lost in desert			
4	NTC deaths			
5	Risk Mgmt Steps			
6	Risk Mgmt Process			
7	Accident definition			
8	Night vehicle training			
9	Vehicle PMCS			
10	Cold WX fluid intake			
11	Vehicle refueling			
12	Vehicle dismount			
13	Emergency assistance			
14	Ground guide signals			
15	Heater fuel			
16	Driver's PPE			
17	Hot WX fluid intake			
18	Grnd Guide procedures			
19	Cold WX injury prevention			
20	Antenna tip			
21	Tactical speed lmts			
22	Smoking limits			



NTC AVIATION FORCE PROTECTION (SAFETY) READINESS QUIZ (2nd ED)
UNIT TALLY SHEET

QUESTION		UNIT		
		<i>AVN TF XXI</i>		
NO.	SPECIFIC TOPIC			
1	Safety in combat ops	1	/	52
2	Wartime accident losses			2%
3	Risk Mgmt steps	↑	↑	↑
4	Readiness deficiencies	aviators who missed question	aviators who answered question	percent aviators who missed question
5	Definition of hazard			
6	NVG blackout ops			
7	Performance planning			
8	NVG flight routes			
9	IMC-related problem			
10	Wirestrike prevention			
11	Onboard survival equip			
12	Aircraft turbulence category			
13	Crew coord - direct assist			
14	Crew advise unsafe situation			
15	H2O & survival vest onboard			
16	NVG currency requirements			
17	Multiship ops approval level			
18	Recompute weight & balance			
19	Terrain flt ops - 25 to 80 ft			
20	Terrain flt ops - >80 ft			
21	Terrain flt ops - up to 25 ft			
22	Flying in MOPP			
23	Minimize brownout			
24	Cold WX fluid intake			

ENCL 10

TFXXI
NTC GROUND SAFETY QUIZ
-TOP 10 QUESTIONS MISSED-

<i>Q#</i>	<i>TOPIC</i>	<i>MISSED</i>
34	VEHICLE OPERATIONS - LAST VEHICLE OF A CONVOY	86%
47	RISK MANAGEMENT - RISK ASSESSMENT	82%
32	VEHICLE OPERATIONS - TRANSPORTING PERSONNEL	81%
28	AMMO & EXPLOSIVES - CANTONMENT AREA POLICY	76%
30	ENVIRONMENTAL HAZARDS - ACCLIMATIZATION	69%
17	ENVIRONMENTAL HAZARDS - HOT WEATHER MINIMUM FLUID INTAKE	69%
15	HEATER OPERATIONS - HEATER FUEL	64%
16	VEHICLE OPERATIONS - DRIVER'S PPE	63%
44	AMMO & EXPLOSIVES - SAFE LIMITS FOR FIRING BLANKS	63%
41	ENVIRONMENTAL HAZARDS - WATER INTAKE < 80 DEG FORCED MARCH	61%

SCORE SUMMARY

BEST 96% (1 SOLDIER)
AVERAGE 68% (305 SOLDIERS)
WORST 26% (1 SOLDIER)

TF XXI
NTC AVIATION SAFETY QUIZ
-TOP 10 QUESTIONS MISSED-

<i>Q#</i>	<i>TOPIC</i>	<i>MISSED</i>
17	MULTISHIP OPERATIONS APPROVAL LEVEL	77%
46	MINIMUM DAILY WATER INTAKE	65%
18	RECOMPUTE WEIGHT AND BALANCE	63%
31	NTC INADVERTENT IMC PROCEDURES	62%
6	NTC NVG BLACKOUT OPERATIONS	60%
2	HISTORICAL WARTIME AVIATION LOSSES	48%
41	USE OF IR LIGHT DURING BROWNOUT	42%
26	NTC NVG WEATHER RESTRICTIONS	38%
45	IR LIGHT REQUIRED FOR NVG OPERATIONS	38%
27	LOSS OF GROUND REFERENCES- NVG, FOG	36%
19	TERRAIN FLIGHT OPERATIONS - 25 TO 80 FT	36%

SCORE SUMMARY

BEST 98% (1 AVIATOR)
AVERAGE 71% (52 AVIATORS COMPLETED QUIZ)
WORST 58% (1 AVIATOR)

ACCIDENT RISK ASSESSMENT OF PERSONNEL RATED BY LEADERS

NAMES OF RATED PERSONNEL

- EXAMPLE -

**RISK FACTORS
(FROM NEXT ACCIDENT ASSESSMENT)**

	POINTS										
		ABBOT,PATRICIA	BECKER,BRUCE	CAPPS,JOHN	DURDEN,ED	EVANS,TOM	FLOYD,ADAM	GREEN,STEVE	HATCHER,JOE	IVEY,BERT	JACOBS,MIKE
1. Self discipline (dependability)											
a. Counseled for poor performance/conduct	8				8	8					
b. Had at fault accidents/citations	8					8					
c. Abused alcohol/drugs	8				8						
d. Had judicial/non-judicial punishment	8				8						
e. GT score of 90 or less	8					8					
f. Males under age 25	8		8	8	8	8		8		8	8
2. Leadership (enforcement of standards)											
a. Insufficient knowledge/experience	6		6								
b. Tolerates below-standard performance	12		12								
3. Training (job skills and knowledge)											
a. Not proficient in tasks within job series or MOS	9						9				
b. Not proficient in assigned tasks outside MOS	9			9							
4. Standards (task-cond-std/procedure) do not exist or are not clear/practical	8			8							
5. Support (insuff amount/type/condition)											
a. Personnel	2			2							
b. Equipment	2			2							
c. Supplies	2			2							
d. Services/facilities	2										
EACH PERSON'S	POINTS	0	26	31	32	32	9	8	0	8	8
	RISK	L	M	H	H	H	L	L	L	L	L

FNCL 13

ACCIDENT RISK ASSESSMENT OF AVIATORS RATED BY LEADERS

NAMES OF RATED AVIATORS

- EXAMPLE -

**RISK FACTORS
(FROM NEXT ACCIDENT ASSESSMENT)**

	POINTS	NAMES OF RATED AVIATORS									
		ABBOT,PATRICIA	BECKER,BRUCE	CAPPS,JOHN	DURDEN,ED	EVANS,TOM	FLOYD,ADAM	GREEN,STEVE	HATCHER,JOE	IVEY,BERT	JACOBS,MIKE
1. Self discipline (dependability)											
a. Had flight violations	8				8	8					
b. Had at-fault accidents	16					16					
c. Aeromedical factors	8		8								
d. Had administrative action/punishment	8										
e. Male under age 25	8				8					8	8
2. Leadership (leader needs improvement in enforcing standards)	18				18	18					
3. Training (flight skills and knowledge)	18			18			18		18		
4. Standards (task-cond-std/procedure) do not exist or are not clear/practical	8							8			
5. Support (insuff amount/type/condition of personnel, equipment, supplies, services/facilities, training time/flight hours)	8		8	8				8		8	
EACH PERSON'S	POINTS	0	16	26	34	42	26	8	26	8	8
	RISK	L	L	M	H	EH	M	L	M	L	L

**-TOP 10 -
TYPICAL SOLDIER RESPONSES TO:
“ACTIONS I WILL TAKE TO REDUCE MY ACCIDENT RISK”**

- Ensure that I train to standard and follow published guidance**
- Improve my mission, safety and situational awareness**
- Acquire the appropriate resources to accomplish my mission. (Time, equipment, people etc.)**
- Keep equipment in a safe and operational status**
- Perform risk management prior to all missions**
- Closely monitor my physical and mental condition and that of my subordinates**
- Understand the mission completely and rehearse it whenever possible**
- Conduct better mission planning**
- Communicate support requirements and shortages to my superiors**
- Ensure I take the time to prepare myself and focus on the tasks at hand - attention to detail**

- TOP 10 -

“CHAIN-OF-COMMAND ACTIONS NEEDED TO REDUCE MY RISK”

- **Provide subordinates with the required resources to accomplish the mission (time, guidance, equipment, people, etc.)**
- **Provide better/detailed Risk Management training**
- **Monitor soldiers' fatigue (OPTEMPO, mental, physical health)**
- **Allow more training time and reduce distractors**
- **Enforce Army and TFXI standards**
- **Communicate the Commander's intent to the lowest level (keep soldiers informed)**
- **Ensure that all levels of command comply with the 1/3 - 2/3 rule (not just lip service)**
- **Be positive towards subordinate's feedback**
- **Ensure soldiers are trained to standard - emphasizing TFXI tasks**
- **Provide junior leaders with safety SOPs and guidance**

TFXXI

ACCIDENT RISK ASSESSMENT OF PERSONNEL RATED BY COMMANDERS/LEADERS

RISK FACTORS (FROM NEXT ACCIDENT ASSESSMENT)	PTS	PERCENT OF PERSONNEL
1. Self discipline (dependability)		
a. Counseled for poor performance	8	16%
b. Had at-fault accidents/citations	8	5%
c. Abused alcohol/drugs	8	5%
d. Had judicial/non-judicial punishment	8	6%
e. GT score of 90 or less	8	8%
f. Males under age 25	8	40%
2. Leadership (enforcement of standards)		
a. Insufficient knowledge/experience	6	20%
b. Tolerates below-standard performance	12	13%
3. Training (job skills and knowledge)		
a. Not proficient in assigned MOS tasks	9	6%
b. Not proficient in assigned tasks outside MOS	9	13%
4. Standards (task-cond-std/procedure) do not exist or are not clear/practical	8	10%
5. Support (insuff amount/type/condition)		
a. Equipment	2	23%
b. Supplies	2	20%
c. Services/facilities	2	19%
d. Personnel	2	16%

● **844 Soldiers were assessed by 187 leaders**

● **Assessment results were:**

<u>RISK LEVEL</u>	<u>PERCENT OF SOLDIERS</u>
Extremely High	6%
High	6%
Moderate	11%
Low	77%

● **Indicators/sources of accident risk as reported are shown at the left.**

AVN TF
ACCIDENT RISK ASSESSMENT OF AVIATORS RATED BY LEADERS

RISK FACTORS (FROM NEXT ACCIDENT ASSESSMENT)	POINTS	PERCENT OF PERSONNEL
1. Self discipline (dependability)		
a. Had flight violations	8	
b. Had at-fault accidents	16	
c. Aeromedical factors	8	3%
d. Had administrative action/punishment	8	
e. Male under age 25	8	11%
2. Leadership (leader needs improvement in enforcing standards)	18	
3. Training (flight skills and knowledge)	18	22%
4. Standards (task-cond-std/procedure) do not exist or are not clear/practical	8	3%
5. Support (insuff amount/type/condition of personnel, equipment, supplies, services/facilities, training time/flight hours)	8	57%

● **37 Soldiers were assessed by 7 Leaders**

● **Assessment results were:**

<u>RISK LEVEL</u>	<u>PERCENT OF SOLDIERS</u>
Extremely High	0%
High	5%
Moderate	19%
Low	76%

● **Indicators/sources of accident risk as reported are shown at the left.**

ASSESSMENT OF ACCIDENT RISK FOR SPECIFIC METL TASKS

YOUR: UNIT _____ RANK _____ DUTY POSITION _____

<i>METL TASKS</i>	RISK OF YOUR UNIT HAVING AN ACCIDENT				IF HIGH OR EXT HIGH, EXPLAIN WHY.
	LOW	MED	HIGH	EXT HIGH	
1. Deploy the Brigade					----- ----- -----
2. Prepare for combat					----- ----- -----
3. Move the Brigade					----- ----- -----
4. Recon/Surv/Security					----- ----- -----
5. Movement to Contact					----- ----- -----
6. Deliberate attack					----- ----- -----
7. Conduct passage of lines					----- ----- -----
8. Defend in sector					----- ----- -----
9. Conduct sustainment ops					----- ----- -----
10. Integrate TF XXI Digital Sys					----- ----- -----

ASSESSMENT OF ACCIDENT RISK FOR SPECIFIC METL TASKS

YOUR: UNIT TF XXI (ROLL-UP) RANK _____ DUTY POSITION _____

METL TASKS	RISK OF YOUR UNIT HAVING AN ACCIDENT				IF HIGH OR EXT HIGH, EXPLAIN WHY.
	1 LOW	2 MOD	3 HIGH	EXT 4 HIGH	
1. Deploy the Brigade N = 72	13 x 1 13	20 x 2 40	34 x 3 102	4 x 4 16	$171 \div 72 = 2.38$ (High)
2. Prepare for combat					-----
3. Move the Brigade					-----
4. Recon/Surv/Security					-----
5. Movement to Contact					-----
6. Deliberate attack					-----
7. Conduct passage of lines					-----
8. Defend in sector					-----
9. Conduct sustainment ops					-----
10. Integrate TF XXI Digital Sys					-----

TF XXI ASSESSMENT OF ACCIDENT RISK

RISK RANK OF METL	NUMBER OF PERSONNEL	LOW	MOD	HI	EX HI
		1	2	3	4
1. Deploy the Brigade	72	2.38			
2. Prepare for combat	71	1.73			
3. Move the Brigade	72	2.36			
4. Recon/Surv/Security	70	2.16			
5. Movement to Contact	67	2.40			
6. Deliberate attack	68	2.34			
7. Conduct passage of lines	67	2.31			
8. Defend in sector	70	2.00			
9. Conduct sustainment ops	70	1.94			
10. Integrate TF XXI Digital Sys	71	2.15			

REASONS FOR ACCIDENT RISK IN METL TASKS

1. DEPLOY THE BRIGADE - HIGH RISK

- Initial task; multiple actions ongoing while leadership is scattered
- Lack of training; SOP inadequate and not followed; new inexperienced soldiers
- Numerous moving pieces; hard to command and control

2. PREPARE FOR COMBAT - MODERATE RISK

- Lack of gunnery training; soldiers unfamiliar with all types of ammunition
- No tactical flight training (NOE, slingload, insertions)
- Inexperienced soldiers and new equipment

3. MOVE THE BRIGADE - HIGH RISK

- Many inexperienced/untrained crews
- Convoy operations/coordination
- Many moving pieces on unfamiliar terrain

METL RISK REASONS CONTINUED

4. RECON/SURVEY/SECURITY - HIGH RISK

- High risk for fratricide (trigger happy)
- Lack of limited visibility training
- New organization/inexperienced crews

5. MOVEMENT TO CONTACT - HIGH RISK

- Maneuver in a highly fluid environment; converging forces
- Untrained/inexperienced personnel
- Command and control tasked; hard to implement control measures

6. DELIBERATE ATTACK - HIGH RISK

- Night/early morning; fatigue
- Untrained/inexperienced personnel
- Moving/integrating all BOS assets

7. CONDUCT PASSAGE OF LINES - HIGH RISK

- Concentration of forces; multiple tasks
- Requires external coordination; high risk of fratricide
- Untrained/inexperienced leadership at company level

METL RISK REASONS CONTINUED

8. DEFEND IN SECTOR - MODERATE RISK

- Long hours with little rest
- Untrained/inexperienced personnel
- Lack of weapons/vehicle identification training

9. CONDUCT SUSTAINMENT OPERATIONS - MODERATE RISK

- New organization, leaders and procedures
- Fatigue; continuous operations
- Personnel shortages (wheeled vehicle commanders)

10. INTEGRATE TFXXI DIGITAL SYSTEMS - HIGH RISK

- New equipment/untrained personnel
- Reliance on technology
- Lack of field testing; field training exercises

NOTE: One reason given for all METL tasks was: “Never trained as a task force”.

CDR'S AND ISG 's OPEN FORUM

“YES” RESPONSE

Are sufficient resources provided to execute the mission?	6%
Do leaders use the force protection cards in the safety SOP?	13%
Have leaders seen/read the safety SOP?	23%
Does the unit have a leader certification program?	35%
Is the SO involved in mission planning (ID's hazards, recommends controls and evaluates their effectiveness)?	53%
Is adequate maintenance training provided?	55%
Are required maintenance manuals supplied, updated, and present where work is being done?	60%
Do commanders have specific safety goals, objectives and priorities (e.g., in Quarterly/Annual Training Guidance)?	65%
Is risk management training conducted? (Is unit's previous accident history included?)	66%
Do you know the risk acceptance criteria for your unit?	74%

*** Total soldiers attended = 53.**

PLT LDR's & PSG's OPEN FORUM

	“YES” RESPONSE
Is adequate maintenance training provided?	23%
Are sufficient resources provided to execute the mission?	34%
Does the unit have a leader certification program?	35%
Is risk management training conducted? (Is unit's previous accident history included?)	36%
Are required maintenance manuals supplied, updated, and present where work is being done?	40%
Do you know what force protection is?	40%
Have leaders seen/read the safety SOP?	49%
Do commanders have specific safety goals, objectives and priorities (e.g., in Quarterly/Annual Training Guidance)?	54%
Do you receive MAM's, GPM's, SOUM's ?	54%
Does your unit have a driver's selection and training program?*	100%

* Total soldiers attended = 70.

** General consensus was that, although units have a driver's training program , it is ineffective.

SQD LDR's & BELOW OPEN FORUM

“YES” RESPONSE

Is information communicated and coordinated satisfactorily in the unit?	12%
Is risk management training conducted? (Is unit's previous accident history included)?	16%
Does your unit have a sleep/rest plan?	24%
Are required maintenance manuals supplied, updated, and present where work is being done?	39%
Is adequate maintenance training provided?	45%
Do you know who the Unit Safety Officer/NCO is?	50%
Do senior personnel assist in training/coaching inexperienced individuals?	56%
Have you been trained in cold weather operations (e.g., cold weather precautions, tent heater operations)?	59%
Have you seen/read the safety SOP?	63%
Have you received training on NVD's?	76%

* Total soldiers attended = 171.