



Headquarters U.S. Air Force



Integrity - Service - Excellence

Human Systems Integration Risk Management Tool A Standalone Application



U.S. AIR FORCE

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OVERVIEW



- PURPOSE
- DESCRIPTION
- RISK MANAGEMENT
- USABILITY TESTING
- DEMO
- QUESTIONS





PURPOSE



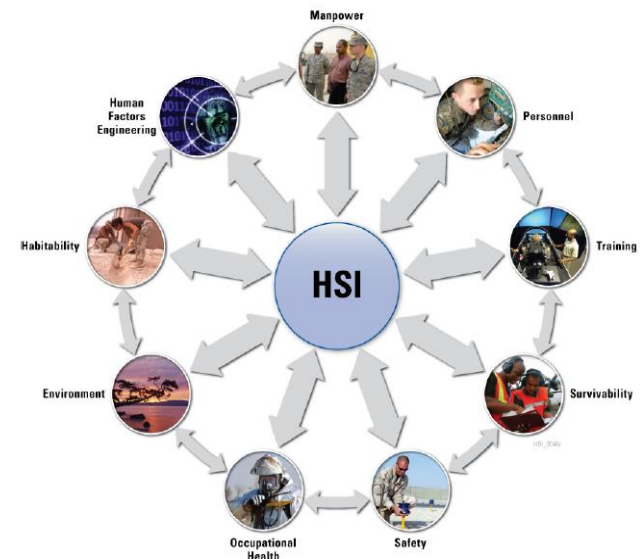
- HSI Practitioner's Aid to track & evaluate HSI activities
- Resource for knowing what to do and when
- Coordinate activities across HSI domains
- Reduce human performance risk
- Reporting vehicle for colleagues and managers





• *HSI-Risk Management Tool (RMT)*

- Combined HSI-CART and HSI-PRAT into one tool
- Consistent questionnaire format across tool
- Increased breadth of analysis (cradle to grave)
- Covers all domains
- Trade-off analysis
- Integrated platform for risk management
- Improved usability





MERGED TOOLS



HSI-RMT

HSI-CART

1. CD
2. CBA
3. AOA

HSI-PRAT

1. MSA
2. TMRR
3. EMD
4. PD
5. OS



HSI RMT



Sign out Projects Tools CART PRAT

HSI PRAT: TMRR – Project HFES DEMO

General	HFE	Man	Psnl	Trng	Env	Saf	OH	Hab	Surv	Integration	RM
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1.01 Have any new stakeholders been identified?

YES

NO

COMMENT: Contract has been awarded to XYZ Human Engineering Corp for a ground control station upgrade. Will be forming an HSI WG.



DOD RISK MANAGEMENT STRATEGY





HSI RISK ASSESSMENT



PRAT: TMRR: HFE 2.02 Are system functional requirements compliant with user needs and HFE design standards?

YES

NO

Risk Rating = Likelihood x Severity

S e v e r i t y	Catastrophic	5	5	10	15	20	25
	Significant	4	4	8	12	16	20
	Moderate	3	3	6	9	12	15
	Low	2	2	4	6	8	10
	Negligible	1	1	2	3	4	5
			1	2	3	4	5
			Improbable	Remote	Occasional	Probable	Frequent
			Likelihood				

- Catastrophic STOP
- Unacceptable URGENT ACTION
- Undesirable ACTION
- Acceptable MONITOR
- Desirable NO ACTION

COMMENT: System functional requirements comply with MIL STD 1472 but have not been verified with user.



RISK HANDLING



- Risk Handling
 - Answers: “What is the plan to address risk?”
 - Options include: Accept, Avoid, Transfer, Control
 - Choose best implementation approach
 - Is risk mitigation plan feasible, affordable, in time, have significant impact on the risk?
- Risk Monitoring
 - Answers “How has the risk changed?” and “How are the risk mitigation plans working?”
 - Systematically and continuously track and evaluate the performance of risk mitigation plans against human metrics

HSI PRAT: Risk Management – Project HFES DEMO

General	HFE	Man	Psnl	Trng	Env	Saf	OH	Hab	Surv	Integration	RM
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EMD – General – Q1.15 Risk 15:

Rationale:

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- 1) What is the risk mitigation strategy?
 - a) Accept
 - b) Transfer
 - c) Avoid
 - d) Control
- 2) Does the risk impact primarily cost, schedule, or performance?
 - a) Cost
 - b) Schedule
 - c) Performance
- 3) What is the risk mitigation plan? Be sure to identify who is responsible for monitoring the risk, the desired timeline as applicable, and affordability and feasibility.

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- 4) How is the mitigation plan being monitored and tracked?

Enter text here...

- 5) Have the appropriate stakeholders been informed?
 - a) Yes
 - b) No
- 6) Have the mitigation strategy and plan been documented and presented at all relevant decision points?
 - a) Yes
 - b) No





UX/Usability Testing



- **Features**

- Accessibility via keyboard shortcuts for navigation
- Acronym rollover dictionary
- Auto focus on textboxes
- Automatic saving of input
- Saved state (you go the last place you were in the project)
- Consistency of design across questionnaires
- Frequent feedback to the user
- Ability to archive old projects
- Simplified integration section



QUESTIONS

