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# ***DOD HFACS 8.0 TRANSITION GUIDANCE***



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*Safeguard Airmen/Guardians – Protect Resources – Enable Mission Success*

CAO 27 Mar 23



# Overview

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- Background on Transition to DoD HFACS 8.0
- Takeaways on Transition to DoD HFACS 8.0
- Appendix: Changes from DoD HFACS 7.0 to DoD HFACS 8.0



## ***Background on Transition to DoD HFACS 8.0***

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- The Joint Human Factors Working Group (HFWG) developed DoD HFACS Version 8.0 based on lessons learned and best practices after over a decade of using DoD HFACs 7.0.
  - The structure of DoD HFACS remains the same with changes to bins and nanocodes intended to improve the robustness of Human Factors coding and improve inter-rater reliability for more consistent reporting.
  - DoD HFACS version 8.0 was designed to accommodate all occupational communities throughout the DoD to help standardize language between services.
- USAF implementation of DoD HFACS 8.0 is projected for 1 Apr 2023.
- Prior to 1 Apr 23 Safety personnel should continue to use DoD HFACS 7.0 codes to assign human factors to all class levels of events.
  - For mishaps occurring on or before 31 Mar 23, use DoD HFACS 7.0 even if report writing, and final evaluation will extend past 1 Apr 23.
  - **For mishaps occurring on or after 1 Apr 23 use, DoD HFACS 8.0.**

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## ***Takeaways on Transition to DoD HFACS 8.0***

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- Exercise caution when pulling/analyzing HFACS data from AFSAS that includes the transition period when HFACS 8.0 was implemented on 1 Apr 23 as there may be inconsistencies in the data due to changes in the classification system.
  - In AFSAS, nanocodes that were removed and nanocodes that were added are not correlated between HFACS 7.0 and HFACS 8.0.
  - AFSAS will have two separate searches, one for HFACS 7.0 and one for HFACS 8.0 (currently in work as of 3 Mar 23).



## ***Takeaways on Transition to DoD HFACS 8.0***

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- Bottom Line: HFACS 8.0 is a tool, just like HFACS 7.0. The way investigators apply the tool remains the same.
- Major changes from 7.0 to 8.0 include:
  - Every unsafe act must include at least one individual precondition
  - A new focus on organizational climate and unit safety culture
  - A new focus on training's impact and effectiveness
  - Changing terms that assign blame (ex: previous “violations” are now “deviations”)
  - Revamping/condensing sensory misperception and physiological conditions
  - Refocusing on teamwork and communication
- For a comprehensive, detailed list of each change between 7.0 and 8.0, see slides 7-26 of this presentation. Further information is also provided in the HFACS 8.0 Transition Guide.



DoD HFACS 8.0  
Transition Guide

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## ***Appendix:***

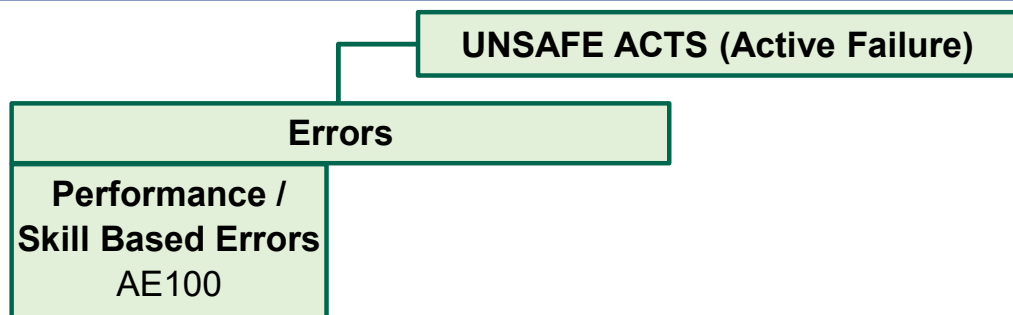
# ***Changes from DoD HFACS 7.0 to DoD HFACS 8.0***

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# Changes from DoD HFACS 7.0 to 8.0

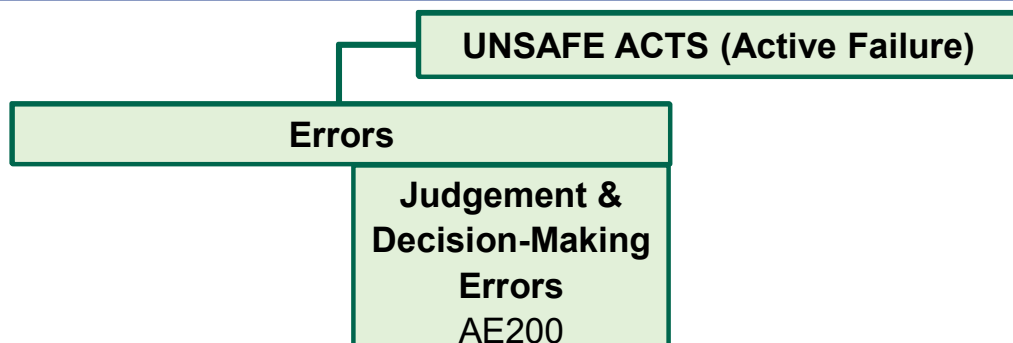


PERFORMANCE/SKILL BASED ERRORS <i>(changed – was “Performance-Based Errors”)</i>	AE100 (Bin)
Unintended Activation or Deactivation <i>(changed “of Equipment” to “or Deactivation”)</i>	AE101
Procedure or Checklist Not Followed Correctly <i>(added “Procedure or” to tag-line)</i>	AE102
<del>Procedure Not Followed Correctly</del> <i>Combined with AE102</i>	<del>AE103</del>
Over-Controlled/Under-Controlled Aircraft/Vehicle/Vessel or System <i>(added “/Vessel or System” to tag-line)</i>	AE104
Breakdown in Visual Scan or Instrument Cross-check <i>(added “or Instrument Cross-check” to tag-line)</i>	AE105
Rushed or Delayed a Necessary Action <i>(no change)</i>	AE107
Misinterpreted/Misread Instrument <i>(new code – formerly PC505)</i>	AE108

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## Changes from DoD HFACS 7.0 to 8.0

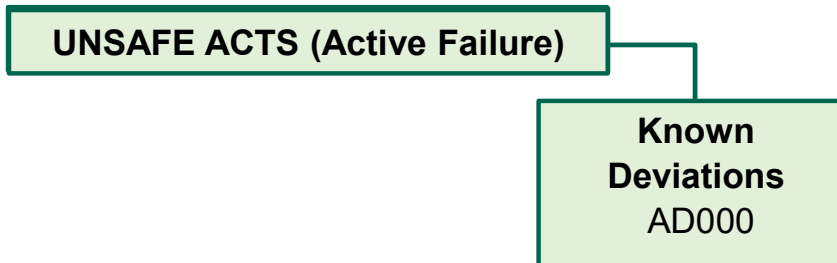


JUDGMENT & DECISION-MAKING ERRORS <i>(no change)</i>		AE200 (Bin)
Inadequate Real-Time Risk Assessment/Action	<i>(added “/Action”)</i>	AE201
Ineffective Task Prioritization	<i>(changed – was “Failure to Prioritize Tasks Adequately”)</i>	AE202
Ignored a Caution/Warning	<i>(no change)</i>	AE205
<del>Wrong Choice of Action During an Operation</del>	<i>(combined with AE201)</i>	<del>AE206</del>
Misjudged/Misperceived Changing Environment	<i>(new code – formerly PC504)</i>	AE207





## Changes from DoD HFACS 7.0 to 8.0



KNOWN DEVIATIONS <i>(changed – was “Violations”. Also changed code from AV to AD)</i>	AD000 (Bin)
Performed Known Deviation (Work-Around) <i>(changed – was “Performs Work-Around Violation”)</i>	AD001
Commits Widespread/Routine Known Deviation (Normalization of Deviance) <i>(changed - was “Commits Widespread/Routine Violation”)</i>	AD002
Extreme Lack of Discipline (Indiscipline) <i>(changed - was “Extreme Violation – Lack of Discipline”)</i>	AD003



# Changes from DoD HFACS 7.0 to 8.0

## PRECONDITIONS (Active & Latent Failures)

- Sensory Misperception Bin: This bin has been archived as all codes have been consolidated into other codes or moved to other bins.

SENSORY MISPERCEPTION CONDITIONS ( <i>changed – added “CONDITIONS”</i> )		PC500 (bin)
<del>Motion Illusion</del>	<i>(combined with PC508 and recoded as PC321)</i>	<del>PC501</del>
<del>Turning/Balance Illusion</del>	<i>(combined with PC508 and recoded as PC321)</i>	<del>PC502</del>
<del>Visual Illusion</del>	<i>(combined with PC508 and recoded as PC321)</i>	<del>PC503</del>
<del>Misperception of Changing Environment</del>	<i>(moved and recoded as AE207)</i>	<del>PC504</del>
<del>Misinterpreted/Misread Instrument:</del>	<i>(moved and recoded as AE108)</i>	<del>PC505</del>
<del>Misinterpretation of Auditory/Sound Cues</del>	<i>(combined with PC508 and recoded as PC321)</i>	<del>PC507</del>
<del>Spatial Disorientation</del>	<i>(moved and recoded as PC321)</i>	<del>PC508</del>
<del>Temporal/Time Distortion</del>	<i>(moved and recoded as PC320)</i>	<del>PC511</del>



# Changes from DoD HFACS 7.0 to 8.0

PRECONDITIONS (Active & Latent Failures)

Conditions of Mishap Individual

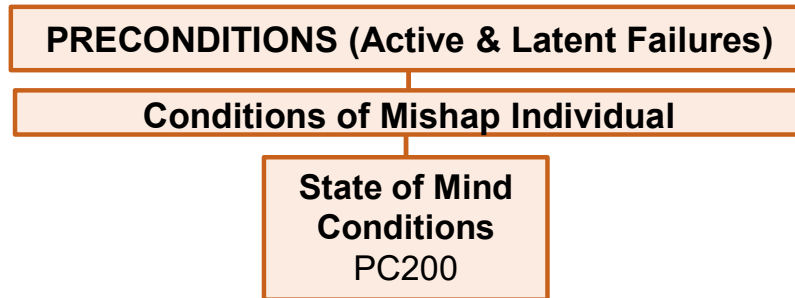
Mental Awareness Conditions  
PC100

MENTAL AWARENESS CONDITIONS "CONDITIONS")	<i>(added</i>	PC100 (Bin)
Inattention	<i>(changed – was "Not Paying attention")</i>	PC101
Fixation (Channelized Attention)	<i>(changed – added "Channelized Attention")</i>	PC102
Task Saturation	<i>(changed – was "Task over-saturation/under-saturation")</i>	PC103
Confusion	<i>(no change)</i>	PC104
Negative Habit Transfer	<i>(no change)</i>	PC105
Distraction/Interruption	<i>(changed – added "Interruption")</i>	PC106
Geographically Lost	<i>(changed – added "Channelized Attention")</i>	PC107
<b>Interference/Interruption</b>	<i>(combined with PC106)</i>	<b>PC108</b>
	<i>Moved to new bin for "Training Preconditions" and recoded as PT102</i>	<b>PC109</b>
Change Blindness/Inaccurate Expectation	<i>(changed – was "Inaccurate Expectation")</i>	PC110

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# Changes from DoD HFACS 7.0 to 8.0



STATE OF MIND CONDITIONS <i>(added "CONDITIONS")</i>		PC200 (Bin)
Psychological Disorder	<i>(changed – was "Psychological Problem")</i>	PC202
Life Stressors/Emotional State	<i>(changed – added "Emotional State")</i>	PC203
<b>Emotional State</b>	combined with PC203	<b>PC204</b>
Personality Style	<i>(no change)</i>	PC205
Overconfidence	<i>(no change)</i>	PC206
<b>Pressing</b>	combined with PC209	<b>PC207</b>
<b>Complacency</b>	combined with PC101	<b>PC208</b>
Pressing, Haste, Motivation	<i>(changed – was "Motivation")</i>	PC209
<b>Mentally Exhausted (Burnout):</b>	combined with PC203	<b>PC215</b>

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# Changes from DoD HFACS 7.0 to 8.0

## PRECONDITIONS (Active & Latent Failures)

### Conditions of Mishap Individual

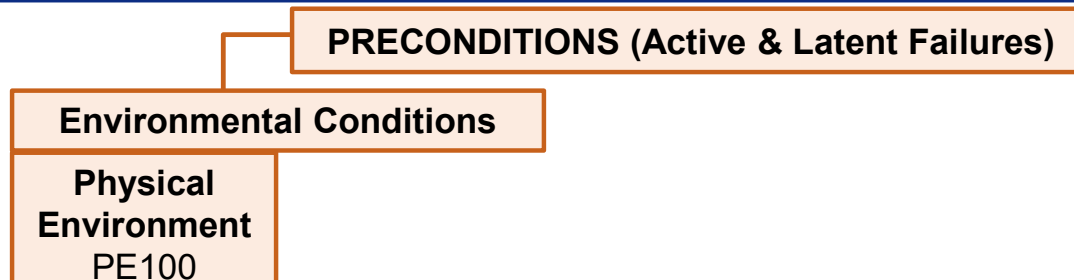
### Adverse Physiological Conditions PC300

ADVERSE PHYSIOLOGICAL CONDITIONS <i>(changed – was “PHYSICAL AND MENTAL STATE”)</i>		PC300 (bin)
Effects of Gravitational Forces (G-LOC)	<i>(Code re-instated from v6.02)</i>	PC301
Substance Effects (supplements, medications, drugs, alcohol)	<i>(no change)</i>	PC302
Loss of Consciousness (sudden or prolonged onset)	<i>(no change)</i>	PC304
Physical Illness/Injury	<i>(no change)</i>	PC305
Physical Overexertion	<i>(Code re-instated from v6.02)</i>	PC306
Fatigue	<i>(no change)</i>	PC307
Acute Trapped Gas Disorders	<i>(changed – added “Acute”)</i>	PC310
Decompression Sickness (Evolved Gas Disorder)	<i>(changed – was “Evolved Gas Disorder”)</i>	PC311
Respiratory Physiological Event	<i>(changed tagline and definition - yet same meaning)</i>	PC312
Inadequate Adaptation to Darkness	<i>(no change)</i>	PC314
<b>Dehydration</b>	combined with PC305	<b>PC315</b>
Anthropometric/Biomechanical Limitations	<i>(changed – was “Body Size/Movement Limitations”)</i>	PC317
<b>Physical Strength &amp; Coordination (inappropriate for task demands):</b>	combined with PC317	<b>PC318</b>
Nutrition/Diet	<i>(no change)</i>	PC319
Loss of Capacity (Surprise/Startle Response)	<i>(New Code)</i>	PC320
Spatial Disorientation	<i>(New Code)</i>	PC321

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# Changes from DoD HFACS 7.0 to 8.0

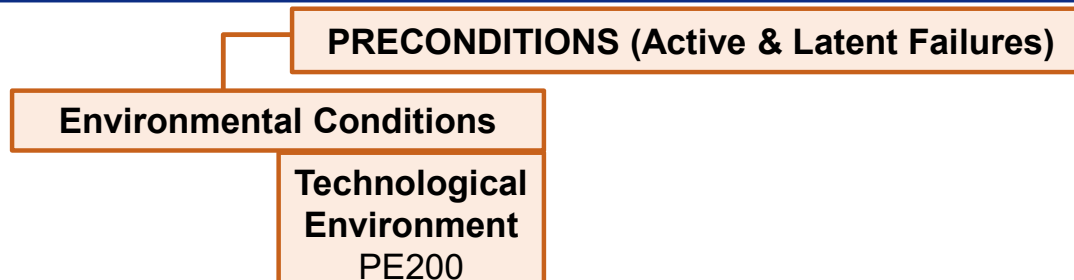


PHYSICAL ENVIRONMENT <i>(no change)</i>	PE100 (bin)
Environmental Conditions Affected Vision <i>(no change)</i>	PE101
Vibration Affected Performance <i>(changed – was “Vibration Affects Vision or Balance”)</i>	PE103
Temperature Affected Performance <i>(changed – was “Heat/Cold Stress Impairs Performance”)</i>	PE106
External Force or Object Impeded Performance <i>(changed – replaced “individual’s movement” with “performance”)</i>	PE108
External Lighting of Vehicle/Aircraft/Vessel/Object Affected Vision <i>(changed – was “Lights of Other Vehicle/Vessel/Aircraft Affected Vision”)</i>	PE109
Noise Interference <i>(no change)</i>	PE110
Terrain Feature Affected Performance <i>(new code)</i>	PE112
Animal or Non-DoD affiliated human <i>(new code)</i>	PE113

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# Changes from DoD HFACS 7.0 to 8.0



TECHNOLOGICAL ENVIRONMENT <i>(no change)</i>	PE200 (bin)
Restraint System and/or Seat Problems: <i>(changed – was “Seat and Restraint System Problems”)</i>	PE201
Instrumentation and Warning System Issues <i>(no change)</i>	PE202
Workspace Visibility Restrictions (not weather related) <i>(changed – added “Workspace”)</i>	PE203
Controls and/or Switches <i>(changed – was “Controls and Switches are inadequate”)</i>	PE204
Automated System Created a Hazardous Condition <i>(changed – was “Automated System Creates an Unsafe Situation”)</i>	PE205
Workspace Limitations Affected Performance <i>(changed – was “Workspace Incompatible with Operation”)</i>	PE206
Personal Equipment Interference <i>(no change)</i>	PE207
Communication Equipment Ineffective <i>(changed – replaced “inadequate” with “Ineffective”)</i>	PC208

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# Changes from DoD HFACS 7.0 to 8.0

## PRECONDITIONS (Active & Latent Failures)

### Team Coordination/ Communication PP100

TEAM COORDINATION/COMMUNICATION CONDITIONS ( <i>changed – was “TEAMWORK”</i> )	PP100 (bin)
Ineffective Team Resource Management (Crew, Bridge, Fighter, Maintenance) ( <i>changed – was “Failure of Crew/Team Leadership”</i> )	PP101
<i>Inadequate Task Delegation:</i>	( <i>Combined with PP101</i> ) <b>PP103</b>
<i>Rank/Position Intimidation:-</i>	( <i>Combined with PP101</i> ) <b>PP104</b>
<i>Lack of Assertiveness</i>	( <i>Combined with PC205</i> ) <b>PP105</b>
<i>Critical Information Not Communicated</i>	( <i>Combined with PP101</i> ) <b>PP106</b>
<i>Standard/Proper Terminology Not Used</i>	( <i>Combined with PP101</i> ) <b>PP107</b>
<i>Failed to Effectively Communicate</i>	( <i>Combined with PP101</i> ) <b>PP108</b>
Task/Mission Planning and/or Briefing Inadequate	( <i>no change</i> ) PP109
Task/Mission-In-Progress Re-Planning	( <i>re-instated code from v6.02</i> ) PP111

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# Changes from DoD HFACS 7.0 to 8.0

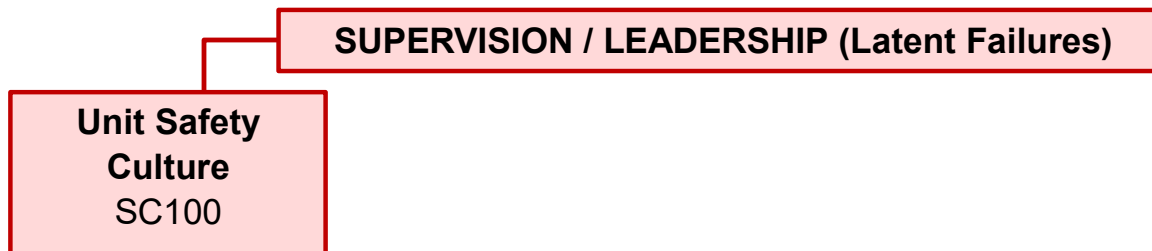
PRECONDITIONS (Active & Latent Failures)

Training  
Conditions  
PT100

TRAINING ( <i>new Bin</i> )		PT100 (bin)
Untrained Operator/Worker	<i>(new code)</i>	PT101
Knowledge Retention	<i>(moved from PC109)</i>	PT102
Lack of Currency	<i>(new code)</i>	PT103
Lack of Proficiency/Experience	<i>(new code)</i>	PT104
Lack of Job/Work Related Safety Training	<i>(new code)</i>	PT105



# Changes from DoD HFACS 7.0 to 8.0



INEFFECTIVE UNIT SAFETY CULTURE <i>(New Bin)</i>			SC100 (bin)
Unit Safety Culture	<i>(new code)</i>		SC101
Pace of OPTEMPO/Workload	<i>(new code)</i>		SC102



# Changes from DoD HFACS 7.0 to 8.0

## SUPERVISION / LEADERSHIP (Latent Failures)

Supervisory  
Known Deviations  
SD000

SUPERVISORY KNOWN DEVIATION <i>(changed tag line – was “Supervisory Violations”; changed codes – replaced “SV” with “SD”)</i>	SD000 (bin)
Failure to Enforce Published Rules/Guidance <i>(changed – was Failure to Enforce Existing Rules)</i>	SD001
Allowed Unwritten Practices to Become Standard (Normalization of Deviance) <i>(changed – was “Allowing Unwritten Policies to Become Standard”)</i>	SD002
Directed Individual to Circumvent Existing Regulations, Rules, or Procedures <i>(changed – added “Rules, or Regulations”)</i>	SD003
<i>Authorized Unqualified Individuals for Task</i>	<i>(combined with SD001) SV004</i>



# Changes from DoD HFACS 7.0 to 8.0

## SUPERVISION / LEADERSHIP (Latent Failures)

### Ineffective Supervision SI000

INEFFECTIVE SUPERVISION <i>(changed tag line – was “Inadequate Supervision”)</i>	SI000 (bin)
Ineffective Supervisory or Command Oversight <i>(changed – was “Supervisory/Command Oversight Inadequate”)</i>	SI001
<b>Improper Role Modeling</b> combined with SC101	<b>SI002</b>
Failed to Provide Effective Training <i>(changed – replaced “proper” with “Effective”)</i>	SI003
Failed to Provide Clear Written Procedure/Guidance/Policy <i>(changed – was “Failed to Provide Appropriate Policy/Guidance”)</i>	SI004
<b>Personality Conflict with Supervisor</b> archived	<b>SI005</b>
Lack of Supervisory Responses to Critical Information <i>(No change)</i>	SI006
Failed to Identify or Correct Hazardous Practices, Conditions or Guidance <i>(changed – was “Failed to Identify/Correct Risky or Unsafe Practices”)</i>	SI007
Tasked Individual(s) with Lack of Experience, Currency or Proficiency <i>(changed – was “Selected Individual with Lack of Proficiency”)</i>	SI008
Rank/Position Intimidation <i>(new code)</i>	SI009

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# Changes from DoD HFACS 7.0 to 8.0

## SUPERVISION / LEADERSHIP (Latent Failures)

Ineffective Planning  
& Coordination  
SP000

INEFFECTIVE PLANNING AND COORDINATION <i>line – was “Planned Inappropriate Operations”</i>	<i>(changed tag)</i>	SP000 (bin)
<del>Directed Task Beyond Personnel’s Capabilities</del>	<i>(combined with SI008)</i>	<del>SP001</del>
<del>Inappropriate Team Composition</del>	<i>(combined with SP006)</i>	<del>SP002</del>
<del>Selected Individual with Lack of Current or Limited Experience</del>	<i>(combined with SI008)</i>	<del>SP003</del>
Ineffective Deliberate Risk Assessment <i>(changed – was “Performed Inadequate Risk Assessment”)</i>		SP006
Authorized Unnecessary Risk <i>(changed – was “Authorized Unnecessary Hazard”)</i>		SP007
Ineffective Pre-Mission Planning:	<i>(New code)</i>	SP008
Unit Failure to Provide Sufficient Operational Information Resources	<i>(New code)</i>	SP009
Unit Failure to Provide Sufficient Manning/Staffing	<i>(New code)</i>	SP010
Unit Failure to Provide Sufficient Equipment or Supplies	<i>(New code)</i>	SP011

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# Changes from DoD HFACS 7.0 to 8.0

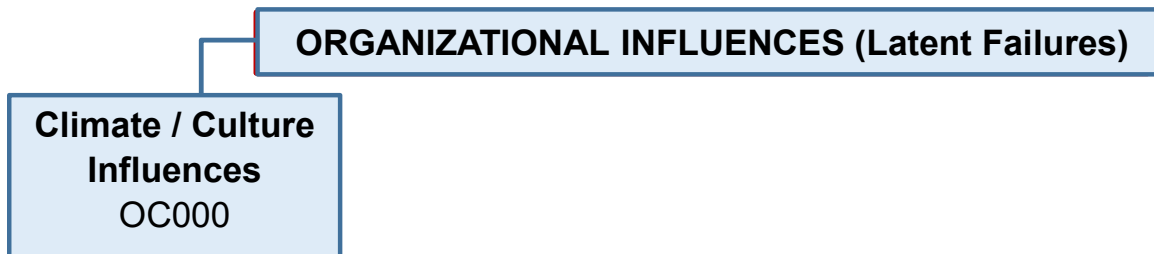
## ORGANIZATIONAL INFLUENCES (Latent Failures)

- Personnel Selection & Staffing Bin: This bin has been archived as both codes have been moved to the Resources Support Problems Bin.

PERSONNEL SELECTION & STAFFING <i>(Deleted)</i>	OS000
<i>(Moved back to OR006 from OS001. Note: The was OR006 under v6.02 then changed to OS001 under v7.0)</i>	<del>OS001</del>
<i>(Moved back to OR007 from OS002. Note: The was OR007 under v6.02 then changed to OS002 under v7.0)</i>	<del>OS002</del>



# Changes from DoD HFACS 7.0 to 8.0



ORGANIZATIONAL CLIMATE/CULTURE <i>(changed tag line – was “CLIMATE/CULTURE INFLUENCES”)</i>	OC000 (bin)
Organizational Culture (attitude/actions) Created Increased Risk: <i>(changed – was “Organizational Culture (attitude/actions) Allows for Unsafe Task/Mission”)</i>	OC001
Organizational Perceptions of Materiel Resources (Equipment) <i>(changed – was “Organizational Over-confidence or Under-confidence in Equipment”)</i>	OC003
Mission/Aircraft/Vehicle/Ship/Equipment Change or Unit Deactivation <i>(no change)</i>	OC004
Organizational Structure is Unclear or Inadequate <i>(no change)</i>	OC005



# Changes from DoD HFACS 7.0 to 8.0

## ORGANIZATIONAL INFLUENCES (Latent Failures)

Policy, Procedures  
or Process Issues  
OP000

ORGANIZATIONAL POLICY, PROCEDURES, OR PROCESS ISSUES <i>(changed tag line – was “POLICY AND PROCESS ISSUES”)</i>	OP000 (bin)
OPTEMPO/Workload: <i>(changed – removed “Pace of”)</i>	OP001
Organizational Program or Operation not Adequately Assessed <i>(changed – was “Organizational Program/Policy Risks not Adequately Assessed”)</i>	OP002
Provided Unclear, Impractical, or Inadequate Policy, Procedural Guidance or Publications <i>(changed – was “Provided Inadequate Procedural Guidance or Publications”)</i>	OP003
Organizational (formal) Training is Inadequate or Unavailable <i>(Move to “Training Program” and recoded as “OT001”)</i>	OP004
Flawed Doctrine/Philosophy <i>(no change)</i>	OP005
Inadequate Program Management/Governance <i>(changed – add “/Governance”)</i>	OP006
Purchasing or Providing Poorly Designed or Unsuitable Equipment <i>(Moved back to OR004 as was under v 6.02)</i>	OP007

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# Changes from DoD HFACS 7.0 to 8.0

## ORGANIZATIONAL INFLUENCES (Latent Failures)

### Resource Support Problems OR000

RESOURCE SUPPORT PROBLEMS <i>(changed tag line – was “RESOURCE PROBLEMS”)</i>	OR000 (bin)
Command and Control (C2) Resources are Deficient: <i>(changed – added “(C2)”</i>	OR001
Inadequate Infrastructure <i>(no change)</i>	OR003
Purchasing or Providing Poorly Designed or Unsuitable Equipment <i>(Moved back to OR004 from OP007. Note: The was OR004 under v6.02 then changed to OP007 under v7.0)</i>	OR004
Failure to Remove Inadequate/Worn-Out Equipment in a Timely Manner <i>(no change)</i>	OR005
Personnel Accession/Selection Policies or Processes <i>(Moved back to OR006 from OS001. Note: The was OR006 under v6.02 then changed to OS001 under v7.0)</i>	OR006
Failure to Provide Adequate Personnel/Staffing Resources <i>(Moved back to OR007 from OS002. Note: The was OR007 under v6.02 then changed to OS002 under v7.0)</i>	OR007
Failure to Provide Adequate Information Resources <i>(no change)</i>	OR008
Failure to Provide Adequate Funding <i>(no change)</i>	OR009

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# Changes from DoD HFACS 7.0 to 8.0

ORGANIZATIONAL INFLUENCES (Latent Failures)

Training Program  
Issues  
OT000

TRAINING PROBLEMS (NEW BIN)	OT000 (bin)
Resident Formal School Training Program is Ineffective or Unavailable <i>(Changed – was OP004 “Organizational (formal) Training is Inadequate or Unavailable”. This is moved to the “Training” bin and recoded as OT001</i>	OT001
Distance Learning Training is Ineffective or Unavailable <i>(New)</i>	OT002