

NOTICE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

N 8900.442

National Policy

Effective Date:
11/2/17

Cancellation Date:
11/2/18

SUBJ: Flight Standards Aviation Safety Inspector (Operations) Risk Management

- 1. Purpose of This Notice.** This notice provides Flight Standards Service policy for determining acceptable risk when an aviation safety inspector (ASI) performs a job task in an aircraft in flight.
- 2. Audience.** The primary audience for this notice includes all Flight Standards ASIs who perform job tasks in an aircraft in flight. The secondary audience includes Flight Standards ASIs' Front Line Managers (FLM), office managers, and division managers.
- 3. Where You Can Find This Notice.** You can find this notice on the MyFAA employee website at https://employees.faa.gov/tools_resources/orders_notices. Inspectors can access this notice through the Flight Standards Information Management System (FSIMS) at <http://fsims.avs.faa.gov>. Operators can find this notice on the Federal Aviation Administration's (FAA) website at <http://fsims.faa.gov>. This notice is available to the public at http://www.faa.gov/regulations_policies/orders_notices.
- 4. Applicability.**
 - a.** This notice applies to all Flight Standards ASIs (Operations) when the inspector conducts:
 - Job task(s) in an aircraft in flight as a required crewmember, as a safety pilot, or while occupying an observer seat.
 - Job task(s) in an aircraft in flight for ASIs in the Aircraft Evaluation Group (AEG).
 - Job task(s) in an aircraft in flight assigned through the Flight Standards Inspector Resource Program (FSIRP).
 - b.** The notice does not apply to Flight Standards ASIs (Operations) when the inspector conducts:
 - Currency or training flights conducted by the Air Traffic Organization (ATO) for the FAA Flight Program, in accordance with the Air Traffic Organization Flight Program Operations—AFS Participant Flight Operations Manual.

- Local rental flights for currency or training conducted by ATO for the FAA Flight Program, in accordance with the Air Traffic Organization Flight Program Operations—AFS Participant Flight Operations Manual.
- Job tasks in a flight simulation training device (FSTD).
- Job tasks in an aircraft in flight for which the operator applies an approved formal risk management process.
- En route inspections conducted under Title 14 of the Code of Federal Regulations (14 CFR) for which the operator exercises operational control.

5. Operational Risk Policy.

a. Background. By the nature of the ASI's job, the ASI is exposed to hazards on a flight. A hazard may be a present condition, an event, or a circumstance that could lead to or contribute to an unplanned or undesired event such as an accident. When the future impact of a hazard is not controlled or eliminated, there is risk. Risk management is a formalized way of dealing with hazards and potential risk. It is the logical process of weighing the potential costs of the risks against the possible benefits of allowing those risks to stand uncontrolled. In order to manage risk associated with job tasks involving a flight, the Flight Standards Flight Program Requirements Steering Committee (FPRSC) developed an Operational Risk Matrix (ORM) to quantify the flight's risk, identify any applicable risk mitigations present for the flight, assign a risk level based on the calculated risk for the flight, and determine whether the risk is acceptable to conduct the flight.

b. Preflight ORM Worksheet. If the operator has an approved formal risk management process and applies that process for the flight, the ASI needs not complete an ORM worksheet. Otherwise, the ASI performing the job task must complete the ORM worksheet prior to conducting the flight. This task will not be delegated. Where more than one Operations ASI is participating in the same flight, one ASI and that ASI's management are responsible for completing the risk assessment. See Appendix A, Flight Standards Preflight ORM Worksheet (Non-AEG Flights), for a worksheet and instructions. See Appendix B, Flight Standards Preflight ORM Worksheet (AEG Flights Only), for a worksheet specific to the AEG. Electronic versions of the forms are available through FSIMS at http://fsims.faa.gov/Wdocs/Other/ORM%20Forms/ORM_Form_Appendix_A_Final-10-26-17.pdf and http://fsims.faa.gov/Wdocs/Other/ORM%20Forms/ORM_Form_Appendix_B_Final-10-26-17.pdf.

c. Operational Risk Assessment. The ASI performs the operational risk assessment by completing an ORM worksheet before the flight. The total risk is the sum of all risk values applicable to the flight less any applied risk mitigations. The total risk places the mission in one of three risk categories, "LOW," "MEDIUM," or "HIGH." A risk acceptance authority, as defined below, will then decide whether the risk level is acceptable for the mission. If the risk is not acceptable, the mission will not be conducted until appropriate mitigations lower the total risk to an acceptable level. An ASI will never be forced to perform a job function in an aircraft in flight, regardless of the risk level, if the ASI considers the task unsafe.

d. Risk Assessment Timing. The ASI completes the ORM worksheet as close to the flight's departure as possible. If the flight is delayed, the ASI will update the ORM worksheet just prior to the new departure time to accurately reflect the flight's risk.

e. Uncalculated Risk. Uncalculated risk is risk that was not accounted for in the worksheet. Risk is increased by adding the subjective value(s) based on the judgement of the ASI or the management team. This worksheet was not intended to capture all risk for all possible missions. This block is the ASI's opportunity to identify risks not identified elsewhere in the worksheet. These risks might come from the aircraft's condition, deferred maintenance items, equipment unfamiliar to the ASI, or something unusual about the mission, as examples. Uncalculated risk might relate to the "IMSAFE" checklist for Illness, Medication, Stress, Alcohol, Fatigue, and Eating/Food. The risk should be listed in the block or on a separate sheet with a subjective risk value. Determine a risk value by comparing the risk to the risks in the first part of the worksheet. For example: the ASI is doing a Title 49 of the United States Code (49 U.S.C.) § 44709 reexamination and the helicopter for the flight just came out of an annual inspection. The ASI may decide to add a risk value of 5 by looking at the risk values for other items such as autorotations. Consider as many additional risk factors as are appropriate and assign a subjective value to each. Briefly describe the risk(s) and enter the value(s) in the right-hand column, which will then be added to the total risk calculated to that point. Once this risk is identified, it may be mitigated in block 12.

f. Mitigated Risk. Mitigated risk is risk that is reduced by some method. Risk is decreased by subtracting a subjective value(s) based on the judgement of the ASI or the management team. This block is the ASI's opportunity to reduce risk identified earlier in the worksheet, including the uncalculated risk in block 11. For example, if the mission will be conducted in a tailwheel aircraft, recent recurrent ASI tailwheel training may be a mitigation. The risk for flight in a tailwheel aircraft has a value of 6 as assigned in block 2. The ASI may choose to reduce that risk by a subjective value of 4 based on the recurrent training. Briefly describe what the mitigation(s) are in block 12 or on an additional paper, and enter the total risk mitigation in the right-hand column. This value will be subtracted from the total risk calculated up to this point.

g. Risk Acceptance Authority. The total risk calculated in the ORM worksheet determines the risk category. A risk acceptance authority decides whether that risk level is acceptable and electronically signs the form. In cases in which the ASI's manager, office manager, or division manager is not available, the acceptance authority may be delegated to another manager. The authority for each level is as follows:

(1) "LOW" Risk Category. The ASI's Operations FLM decides whether the mission's risk is acceptable for the flight. The FLM selects either "yes" or "no," as appropriate, and signs the form as the risk acceptance authority. If the risk is not acceptable, the mission is not to be conducted.

(2) "MEDIUM" Risk Category. The ASI's office manager decides whether the mission's risk is acceptable. The office manager selects either "yes" or "no," as appropriate, and signs as the risk acceptance authority. If the risk is not acceptable, the mission is not to be conducted.

(3) “HIGH” Risk Category. A mission with a “HIGH” risk level is unusual, and it should receive close scrutiny. Additional mitigation should be applied to reduce the risk to at least a “MEDIUM” or “LOW” risk. If the risk level cannot be reduced, the office manager will forward the mission specifics, along with the ORM, to the appropriate division manager who decides whether the mission’s risk is acceptable. The division manager selects “yes” or “no,” as appropriate, and signs the form as the risk acceptance authority. If the risk is not acceptable, the mission is not to be conducted.

h. Action. If the flight will proceed, the ASI leaves the ORM worksheet, including the risk acceptance, with the Operations FLM, or at an appropriate location if completed away from the home office, until the mission is complete. If the flight does not proceed, the worksheet may be destroyed. There is no requirement under this notice to retain the completed form after the flight is complete or when the risk is determined to be unacceptable.

6. Disposition. We will incorporate the information in this notice into FAA Order 8900.1 before this notice expires. Direct questions concerning the information in this notice to the General Aviation and Commercial Division (AFS-800) at 202-267-1100.

A handwritten signature in black ink, appearing to read 'J. Barbagallo', with a stylized flourish at the end.

John Barbagallo
Deputy Executive Director, Flight Standards Service

Appendix A. Flight Standards Preflight ORM Worksheet (Non-AEG Flights)

FLIGHT STANDARDS PREFLIGHT ORM WORKSHEET (NON-AEG)

Date: _____ Pilot: _____ Copilot/Additional Crew: _____ FTE/Other Crew: _____
Office Code: _____ Departure ICAO: _____ Destination ICAO: _____ Aircraft Make/Model/Series: _____ SN/Registration Number: _____

1. Mission: (Select all that apply)	14 CFR Part 121/135 14 CFR Part 61 14 CFR Part 141 14 CFR Part 183 49 U.S.C. § 44709 Medical Flight Test	2 8 8 8 12 12	
2. Mission Complexity: (Select all that apply)	Day VFR / IFR Currency Hood/NVG Density Altitude >2,500' above field elevation Night Unaided Touch & Go Landing(s) Glassy Water (Seaplane) Rough Water (Seaplane) Special Airport Qualification Autorotations (non-touchdown) Unimproved Airport/Landing Area Unprepared Landing Surface (FW) / Touchdown Autorotation (RW) Slope Landing (RW) Stalls Pinnacle Ops / Confined Area Water Ops / Ski Ops / Emergency Procedure Tng Spins / External Load Training / Aerobatics New Equipment (GPS, TAA, EFVS, EFB, etc.) SFAR Aircraft Brakes One Side Only Single or Throw-Over Controls Conventional (tailwheel) Landing Gear	1 2 3 4 5 2 3 3 4 4 4 4 9 3 4 4 5 7 4 4 5 6 6	
3. Physiological Factors:	Pilot	Additional Crew	
None	1		
Minor	3		
Major	5		
4. Runway Length: (Select one)	≥ (MRL+2,000'), or Rotorcraft ≥ (MRL+1,000') < (MRL+1,000')	1 4 6	
5. Departure Weather:	≥3,000-3 ≥2,000-3(FW) ≥1,000-3(RW) ≥ Approach minimums or 300-1 (no IAP) (FW) ≥ Approach minimums or 300-½ (no IAP) (RW) < Approach minimums or 300-1 (no IAP) (FW) < Approach minimums or 300-½ (no IAP) (RW)	1 2 5 9	

6. Enroute Weather: (Select one item for each hazard)						
Thunderstorms:	Numerous 8	Scattered 6	Few 3	Isolated 1	None 0	
Turbulence:		Severe No-Go	Moderate 3	Light 1	None 0	
Precipitation:		Heavy 7	Moderate 3	Light 1	None 0	
Icing:		Severe No-Go	Moderate 6	Light 3	Trace 1	None 0
7. Destination Weather: (Select one)						
Fixed Wing	≥ 2,000-3				1	
	≥ IAP mins or 1,000-3 (no IAP)				4	
	< IAP mins or 1,000-3 (no IAP)				6	
Rotorcraft	≥ 1,000-2				1	
	≥ IAP mins or 500-1 (no IAP)				4	
	< IAP mins or 500-1 (no IAP)				6	
8. Alternate Airport Weather: (Select one)						
Alternate Not Required					0	
≥ 2000-3					1	
≥ 1000-3					4	
≥ IAP mins					6	
Below 14 CFR 91.169 Requirements						
9. Surface Winds: (Depart & Arrive) (Select one)		XW≤10 kt (FW) & Total Wind≤15 kt (ALL)		1		
		XW≤15 kt (FW) & Total Winds≤20 kt (ALL)		3		
		XW>15 kt (FW) or Total Wind>20 kt (ALL)		6		
		>5 kt (Balloon)		6		
10. EBC Currency: (In what time period) (Verified by Manager)		0-30 Days 31-60 Days 61-90 Days 90+ Days		1 2 3 4		
		14 CFR 61.56/61.57/SFAR currency		Yes No		
11. Uncalculated Risk Value: Enter a value for risk not accounted for above. State the risk(s). Add to the total.					+	
12. Mitigated Risk Value: Enter a value for risk that is mitigated. State the mitigation(s)? Subtract from the total.					-	
13. Risk Level: Calculate total, and choose risk level		Less than 31 LOW	31 to 45 MEDIUM	Greater than 45 HIGH	Total	
14. Outcome: Mission risk is acceptable? YES NO						
_____ Signature of Risk Acceptance Authority						
_____ Inspector Last Name						

FLIGHT STANDARDS PREFLIGHT ORM WORKSHEET INSTRUCTIONS (NON-AEG)

<p align="center">Definitions & Abbreviations</p> <p>Pilot – The pilot (PIC or SIC) who is planned to be predominantly at the controls during critical phases of flight. Additional Crew (2-pilot aircraft) – The pilot who is planned to primarily serve as the pilot not flying (i.e. copilot, safety pilot, etc.). Additional Crew (single pilot aircraft) – A pilot or flight test engineer whose primary purpose is to serve as the PNF (i.e. copilot, safety pilot, etc.). (FW) – Item applies to fixed wing aircraft. (RW) – Item applies to rotorcraft aircraft.</p>
<p align="center">Instructions</p>
<p>1. Mission. Choose the mission(s) for the flight. ASIs conducting enroute inspections need not complete an ORM worksheet. ASIs on flights for which the operator applies an approved risk management process need not complete an ORM worksheet.</p>
<p>2. Mission Complexity. Select risks from the list as applicable to the mission and enter each value in the right column. Not all mission risks are included in the block. Additional risks the ASI identifies should be added in block 11, "Uncalculated Risk Value".</p>
<p>3. Physiological Factors. Physiological is personal health and well-being. For example, if the ASI has a headache, the ASI might enter "3" in the column "Additional Crew". Enter the values for the pilot and additional crew in the right-hand column.</p>
<p>4. Runway Length. MRI is the largest of Critical Field Length (CFL); Accelerate-Stop Distance; Takeoff or landing over 50 ft obstacle distance; or Stop & Go distance. Calculate Minimum Runway Length (MRI) and compare to the runway available at each of the airports in the mission plan. Select the highest risk value among all planned airport operations and enter that value in the right-hand column. Do not consider touch and go runway requirements in this block.</p>
<p>5. Departure Weather. Select the category for departure weather depending on fixed wing aircraft (FW), rotorcraft aircraft (RW), and whether there is an Instrument Approach Procedure (IAP). Enter appropriate risk value for in the right-hand column.</p>
<p>6. Enroute Weather. For each hazard (thunderstorms, turbulence, precipitation, and icing), select the appropriate risk and enter that risk in the right-hand column. For example, if during the enroute portion of the mission the ASI expects to encounter light turbulence but no thunderstorms, precipitation, or icing, the ASI should enter a "1" in the right-hand column opposite the turbulence hazard. Zeros should be entered for the other hazards.</p>
<p>7. Destination Weather. Select fixed wing aircraft (FW) or rotorcraft aircraft (RW) and whether there is an Instrument Approach Procedure (IAP). Enter appropriate risk value for forecast destination weather in the right-hand column.</p>
<p>8. Alternate Weather. If an alternate is not required by 14 CFR §91.169, enter a zero in the right-hand column. If an alternate is required, enter the appropriate risk value for forecast alternate weather. If an alternate is not required, an alternate may be filed on the flight plan with a risk value of zero.</p>
<p>9. Surface Winds. Consider the wind expected at each of the airports in the mission plan and the landing runway's orientation. Consider both the wind velocity and the crosswind component. Enter the highest risk value for all planned airports. For example, the ASI should choose the row with risk of "3" if the wind is equal to 20 knots and the XW is less than 15 knots. For the purposes of this risk assessment worksheet, a maximum demonstrated crosswind is considered a limit. "ALL" means it applies to all categories and classes. For flight in a balloon, the wind must be less than 5 knots.</p>
<p>10. EBC Currency. Enter the risk value for the time period in which Event Based Currency (EBC) was completed. For example, if EBC was completed within the previous 30 days, the risk value would be "1".</p>
<p>11. Uncalculated Risk Value. Uncalculated risk is risk that was not accounted for in the worksheet. Risk is increased by adding the subjective value(s) based on the judgement of the ASI or the management team. This worksheet was not intended to capture all risk for all possible missions. This block is the ASI's opportunity to identify risks not identified elsewhere in the worksheet. These risks might come from the aircraft's condition, deferred maintenance items, equipment unfamiliar to the ASI, or something unusual about the mission, as examples. Uncalculated risk might relate to the IMSAFE checklist for Illness, Medication, Stress, Alcohol, Fatigue, Eating/Food. The risk should be listed in the block or on a separate sheet with a subjective risk value. Determine a risk value by comparing the risk to the risks in the first part of the worksheet. For example, the ASI is doing a 49 U.S.C. § 44709 and the helicopter for the flight just came out of an annual inspection. The ASI may decide to add a risk value of 5 by looking at the risk values for other items such as autorotations. Consider as many additional risk factors as are appropriate, and assign a subjective value to each. Briefly describe the risk(s), and enter the value(s) in the right-hand column, which will then be added to the total risk calculated to that point. Once this risk is identified, it may be mitigated in block 12.</p>
<p>12. Mitigated Risk Value. Mitigated risk is risk that is reduced by some method. Risk is decreased by subtracting a subjective value(s) based on the judgement of the ASI or the management team. This block is the ASI's opportunity to reduce risk identified earlier in the worksheet including the uncalculated risk in block 11. For example, if the mission will be conducted in a tailwheel aircraft, recent recurrent ASI tailwheel training may be a mitigation. The risk for flight in a tailwheel aircraft is "6" as assigned in block 2. The ASI may choose to reduce that risk by a subjective value of "4" based on the recurrent training. Briefly describe what the mitigation(s) are in block 12 or on an additional paper, and enter the total risk mitigation in the right-hand column. This value will be subtracted from the total risk calculated up to this point.</p>
<p>13. Risk Level. This block is the total risk reduced by mitigations in block 12. The result is the mission's risk level. If the final total is less than 30, the risk level is LOW. If the final total is between 31 and 45, the risk level is MEDIUM. If the final total is greater than 45, the risk level is HIGH.</p>
<p>14. Outcome. For LOW risk, the ASI's front line manager decides whether the risk is acceptable. For MEDIUM risk, the ASI's office manager decides whether the risk is acceptable. For HIGH risk, the mission should receive close scrutiny and mitigations to reduce the risk to MEDIUM or LOW. If the HIGH risk level cannot be reduced, the office manager will forward the mission specifics along with the ORM worksheet to the appropriate division manager who decides whether the mission's risk is acceptable. If the risk is acceptable, the flight is conducted. If the risk is not acceptable, the risk is either mitigated further or the flight is not conducted. The appropriate manager selects "YES" or "NO" and signs block 14. An ASI will never be forced to perform a job function in an aircraft in flight, regardless of the risk level, if the ASI considers the task unsafe.</p>

FLIGHT STANDARDS PREFLIGHT ORM WORKSHEET (AEG Flights Only)

Date: _____ Pilot: _____ Copilot/Additional Crew: _____ FTE/Other Crew: _____
Office Code: _____ Departure ICAO: _____ Destination ICAO: _____ Aircraft Make/Model/Series: _____ SN/Registration Number: _____

1. Mission: (Select all that apply)		Experimental Aircraft	1	
		Domestic OEM Operational Control	2	
		Foreign OEM Operational Control ODA	4	
		Operational Control	4	
		Non-OEM Applicant Operational Control	6	
2. Mission Complexity: (Select all that apply)		Steep Approaches	1	
		Multiple Approaches	1	
		Hood/NVG	3	
		Density Altitude >2,500' above field elevation	4	
		Night Unaided	5	
		OCONUS	2	
		Touch & Go Landing(s)	2	
		Glassy Water (Seaplane)	3	
		Rough Water (Seaplane)	3	
		Special Airport Qualification	4	
		Autorotations (non-touchdown)	4	
		Unimproved Airport/Landing Area	4	
		Unprepared Landing Surface (FW) / Touchdown	9	
		Autorotation (RW)		
		High Visibility/Publicity	1	
		AIR Medium Risk	11	
		AIR High Risk	21	
		Stalls	4	
		Pinnacle Ops / Confined Area	4	
		Water Ops / Ski Ops / Emergency Procedure Tng	5	
		Spins / External Load Training / Aerobatics	7	
		New Equipment (GPS, TAA, EFVS, EFBS, etc.)	4	
		SFAR Aircraft	4	
		Brakes One Side Only	5	
		Single or Throw-Over Controls	6	
		Conventional (tailwheel) Landing Gear	6	
3. Physiological Factors:		Pilot	Additional Crew	
None	1			
Minor	3			
Major	5			
4. Runway Length: (Select one)		≥ (MRL+2,000'), or Rotorcraft	1	
		≥ (MRL+1,000')	4	
		< (MRL+1,000')	6	
5. Departure Weather:		≥3,000-3	1	
		≥2,000-3(FW) ≥1,000-3(RW)	2	
≥ Approach minimums or 300-1 (no IAP) (FW)			5	
≥ Approach minimums or 300-½ (no IAP) (RW)				
< Approach minimums or 300-1 (no IAP) (FW)			9	
< Approach minimums or 300-½ (no IAP) (RW)				

6. Enroute Weather: (Select one item for each hazard)					
Thunderstorms:	Numerous 8	Scattered 6	Few 3	Isolated 1	None 0
Turbulence:		Severe No-Go	Moderate 3	Light 1	None 0
Precipitation:		Heavy 7	Moderate 3	Light 1	None 0
Icing:	Severe No-Go	Moderate 6	Light 3	Trace 1	None 0
7. Destination Weather: (Select one)					
Fixed Wing	≥ 2,000-3			1	
	≥ IAP mins or 1,000-3 (no IAP)			4	
	< IAP mins or 1,000-3 (no IAP)			6	
Rotorcraft	≥ 1,000-2			1	
	≥ IAP mins or 500-1 (no IAP)			4	
	< IAP mins or 500-1 (no IAP)			6	
8. Alternate Airport Weather: (Select one)					
Alternate Not Required			0		
≥ 2000-3			1		
≥ 1000-3			4		
≥ IAP mins Below 14 CFR 91.169 Requirements			6		
9. Surface Winds: (Depart & Arrive) (Select one)					
XW≤10 kt (FW) & Total Wind≤15 kt (ALL)		1			
XW≤15 kt (FW) & Total Wind≤20 kt (ALL)		3			
XW>15 kt (FW) or Total Wind>20 kt (ALL)		6			
>5 kt (Balloon)		6			
10. EBC Currency: (In what time period) (Verified by Manager)					
0-30 Days			1		
31-60 Days			2		
61-90 Days			3		
90+ Days			4		
14 CFR 61.56/61.57/SFAR currency			Yes	No	
11. Uncalculated Risk Value: Enter a value for risk not accounted for above. State the risk(s). Add to the total.					
+					
12. Mitigated Risk Value: Enter a value for risk that is mitigated. State the mitigation(s)? Subtract from the total.					
-					
13. Risk Level: Calculate total, and choose risk level		Less than 31 LOW	31 to 45 MEDIUM	Greater than 45 HIGH	Total
14. Outcome: Mission risk is acceptable? YES NO					
Signature of Risk Acceptance Authority					
Inspector Last Name					

FLIGHT STANDARDS PREFLIGHT ORM WORKSHEET INSTRUCTIONS (AEG FLIGHTS ONLY)

Definitions & Abbreviations
<p>Pilot – The pilot (PIC or SIC) who is planned to be predominantly at the controls during critical phases of flight.</p> <p>Additional Crew (2-pilot aircraft) – The pilot who is planned to primarily serve as the pilot not flying (i.e. copilot, safety pilot, etc.).</p> <p>Additional Crew (single pilot aircraft) – A pilot or flight test engineer whose primary purpose is to serve as the PNF (i.e. copilot, safety pilot, etc.).</p> <p>(FW) – Item applies to fixed wing aircraft.</p> <p>(RW) – Item applies to rotorcraft aircraft.</p> <p>Entries in bold text – Tactical assessment items which may be included in the AEG ASI's day-of tactical assessment. All AEG flights require a tactical assessment. The ASI will sign the Tactical Assessment section of the form indicating the assessment was completed and did not result in a risk category (LOW, MEDIUM, HIGH) increase from the initial risk assessment.</p>
Instructions
<p>1. Mission. Choose the mission(s) for the flight. ASIs conducting enroute inspections need not complete an ORM worksheet. ASIs on flights for which the operator applies an approved risk management process need not complete an ORM worksheet.</p>
<p>2. Mission Complexity. Select risks from the list as applicable to the mission and enter each value in the right column. Not all mission risks are included in the block. Additional risks the ASI identifies should be added in block 11, "Uncalculated Risk Value".</p>
<p>3. Physiological Factors. Physiological is personal health and well-being. For example, if the ASI has a headache, the ASI might enter "3" in the column "Additional Crew". Enter the values for the pilot and additional crew in the right-hand column.</p>
<p>4. Runway Length. MRL is the largest of Critical Field Length (CFL); Accelerate-Stop Distance; Takeoff or landing over 50 ft obstacle distance; or Stop & Go distance. Calculate Minimum Runway Length (MRL) and compare to the runway available at each of the airports in the mission plan. Select the highest risk value among all planned airport operations and enter that value in the right-hand column. Do not consider touch and go runway requirements in this block.</p>
<p>5. Departure Weather. Select the category for departure weather depending on fixed wing aircraft (FW), rotorcraft aircraft (RW), and whether there is an Instrument Approach Procedure (IAP). Enter appropriate risk value for in the right-hand column.</p>
<p>6. Enroute Weather. For each hazard (thunderstorms, turbulence, precipitation, and icing), select the appropriate risk and enter that risk in the right-hand column. For example, if during the enroute portion of the mission the ASI expects to encounter light turbulence but no thunderstorms, precipitation, or icing, the ASI should enter a "1" in the right-hand column opposite the turbulence hazard. Zeros should be entered for the other hazards.</p>
<p>7. Destination Weather. Select fixed wing aircraft (FW) or rotorcraft aircraft (RW) and whether there is an Instrument Approach Procedure (IAP). Enter appropriate risk value for forecast destination weather in the right-hand column.</p>
<p>8. Alternate Weather. If an alternate is not required by 14 CFR §91.169, enter a zero in the right-hand column. If an alternate is required, enter the appropriate risk value for forecast alternate weather. If an alternate is not required, an alternate may be filed on the flight plan with a risk value of zero.</p>
<p>9. Surface Winds. Consider the wind expected at each of the airports in the mission plan and the landing runway's orientation. Consider both the wind velocity and the crosswind component. Enter the highest risk value for all planned airports. For example, the ASI should choose the row with risk of "3" if the wind is equal to 20 knots and the XW is less than 15 knots. For the purposes of this risk assessment worksheet, a maximum demonstrated crosswind is considered a limit. "ALL" means it applies to all categories and classes. For flight in a balloon, the wind must be less than 5 knots.</p>
<p>10. EBC Currency. Enter the risk value for the time period in which Event Based Currency (EBC) was completed. For example, if EBC was completed within the previous 30 days, the risk value would be "1".</p>
<p>11. Uncalculated Risk Value. Uncalculated risk is risk that was not accounted for in the worksheet. Risk is increased by adding a subjective value(s) based on the judgement of the ASI or the management team. This worksheet was not intended to capture all risk for all possible missions. This block is the ASI's opportunity to identify risks not identified elsewhere in the worksheet. These risks might come from the aircraft's condition, deferred maintenance items, equipment unfamiliar to the ASI, or something unusual about the mission, as examples. Uncalculated risk might relate to the IMSAFE checklist for Illness, Medication, Stress, Alcohol, Fatigue, Eating/Food. The risk should be listed in the block or on a separate sheet with a subjective risk value. Determine a risk value by comparing the risk to the risks in the first part of the worksheet. For example, the ASI is doing a 49 U.S.C. § 44709 and the helicopter for the flight just came out of an annual inspection. The ASI may decide to add a risk value of 5 by looking at the risk values for other items such as autorotations. Consider as many additional risk factors as are appropriate, and assign a subjective value to each. Briefly describe the risk(s), and enter the value(s) in the right-hand column, which will then be added to the total risk calculated to that point. Once this risk is identified, it may be mitigated in block 12.</p>
<p>12. Mitigated Risk Value. Mitigated risk is risk that is reduced by some method. Risk is decreased by subtracting a subjective value(s) based on the judgement of the ASI or the management team. This block is the ASI's opportunity to reduce risk identified earlier in the worksheet including the uncalculated risk in block 11. For example, if the mission will be conducted in a tailwheel aircraft, recent recurrent ASI tailwheel training may be a mitigation. The risk for flight in a tailwheel aircraft is "6" as assigned in block 2. The ASI may choose to reduce that risk by a subjective value of "4" based on the recurrent training. Briefly describe what the mitigation(s) are in block 12 or on an additional paper, and enter the total risk mitigation in the right-hand column. This value will be subtracted from the total risk calculated up to this point.</p>
<p>13. Risk Level. This block is the total risk reduced by mitigations in block 12. The result is the mission's risk level. If the final total is less than 30, the risk level is LOW. If the final total is between 31 and 45, the risk level is MEDIUM. If the final total is greater than 45, the risk level is HIGH.</p>
<p>14. Outcome. For LOW risk, the ASI's front line manager decides whether the risk is acceptable. For MEDIUM risk, the ASI's office manager decides whether the risk is acceptable. For HIGH risk, the mission should receive close scrutiny and mitigations to reduce the risk to MEDIUM or LOW. If the HIGH risk level cannot be reduced, the office manager will forward the mission specifics along with the ORM worksheet to the appropriate division manager who decides whether the mission's risk is acceptable. If the risk is acceptable, the flight is conducted. If the risk is not acceptable, the risk is either mitigated further or the flight is not conducted. All <u>increases in risk category</u> (LOW, MEDIUM, HIGH) during tactical assessment must be coordinated with the appropriate manager. The appropriate manager selects "YES" or "NO" and signs block 14. An ASI will never be forced to perform a job function in an aircraft in flight, regardless of the risk level, if the ASI considers the task unsafe.</p>