U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

National Policy

ORDER 8110.106

Effective Date:
05/18/2009

SUBJ: Assessing the Relative Risk of Title 14 CFR Parts

With this order, the Aircraft Certification Service (AIR) introduces a risk assessment process for the parts of Title 14 of the Code of Federal Regulations (14 CFR) for which the AIR headquarters and national staff are responsible. Risk assessment, applied to operational and manufacturing processes, shows businesses where to concentrate their efforts. Similarly, we can assess our regulations for safety risk. The results may be applied to support safety by applying scarce resources to discerning and mitigating risk. Non-compliance with some regulations (or parts of them) poses a far greater threat to safety than does non-compliance with others. While all applicable regulations must be complied with, certain regulations have more impact than others from a safety risk perspective.

As we use the process, we'll move from subjective/qualitative judgment to objective/data-driven judgment of parameters and outcomes.

Understanding the safety risk involved with potential regulation non-compliance will not only help us apply scarce resources to the regulations that pose safety risk, it will help us design training focused on the assessed risks. Finally, it will help us standardize our business processes across the service.

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Chapter 1. General Information

1. Purpose of This Order.

a. In this order, we, the Federal Aviation Administration (FAA), establish a risk assessment process for parts of Title 14 of the Code of Federal Regulations (14 CFR) for which the Aircraft Certification Service (AIR) is responsible. We show how to use the process to perform a risk assessment. We assign responsibility for maintaining and improving the process and for maintaining the dataset that an assessment creates.

b. Standards staffs and policy offices must perform the risk assessment for their respective 14 CFR parts to comprehend the risk of an undesired event resulting from a potential non-compliance with a given regulation. The purpose of understanding risk is not to gauge the importance of a regulation, but rather to mitigate the risk with resource management and oversight principles. All regulations are important from a safety perspective and must be complied with, as applicable. Furthermore, the risk assessment process is not intended to rank or prioritize the regulations in any form or manner. CFR risk assessment is a component of the safety management system (SMS) implemented in AIR.

c. This order directs AIR standards staffs and policy offices to perform, maintain, and improve the risk assessment process for their respective 14 CFR parts.

2. Audience. This order applies to all AIR headquarters policy offices and directorate standards staffs. This includes the division level in Washington D.C., divisions and directorates in the regions, and AIR offices at the Aeronautical Center.

3. Where Can I find This Order? You can find this order at MYFAA Employee website: https://employees.faa.gov/tools_resources/orders_notices and on the Regulatory and Guidance Library (RGL) website: www.faa.gov/rgl.

4. Roles and Responsibilities.

a. Director of Aircraft Certification Service, AIR-1, directs the use of the risk assessment process across all AIR standards staffs and policy offices in the divisions and directorates.

b. Planning and Program Management Division, AIR-500, will use the risk assessment dataset to develop and prioritize training.

c. Standards Management Team (SMT), ensures the implementation of the risk assessment process.

d. Aircraft Engineering Division, AIR-100, maintains this order and ensures its integration with other orders, as necessary.

e. Directorates/Divisions direct the standards staffs and policy offices to conduct the risk assessment of their assigned 14 CFR parts as per this order. Suggested uses of the resulting dataset are included in chapter 4.

f. Standards staffs and policy offices conduct the risk assessment and maintain the dataset according to this order. They are considered the office of primary responsibility (OPR) for their respective 14 CFR parts and are responsible for standardizing the application of risk assessments in their respective regulatory areas, and using the risk assessment dataset according to this order. They may request assistance from field offices, as necessary, when conducting the risk assessments.

Chapter 2. The Concept of Risk Assessment

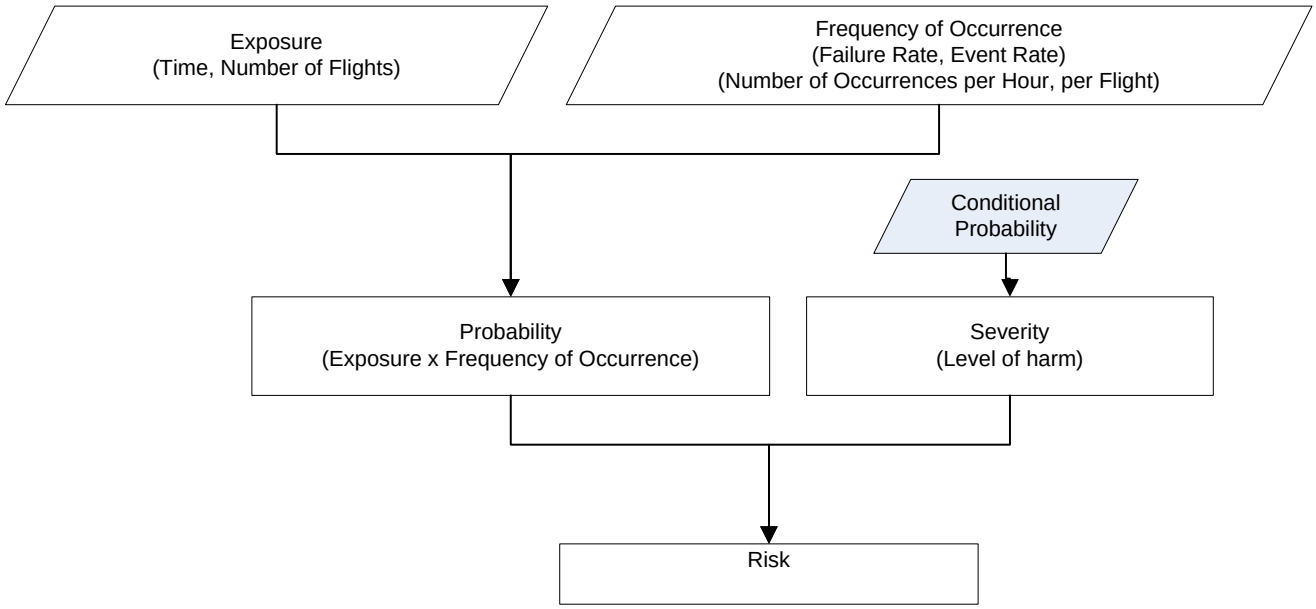
1. Assessing Risk.

a. When we do a risk assessment, we identify and characterize hazards. The process helps us to objectively identify the risks in a safety issue, a business challenge or a process. *Risk* may be a circumstance or a situation that creates uncertainty about whether we will meet a program objective.

b. Risk has two basic components: probability and severity. Probability defines the likelihood of a particular event, and, how often it will occur. Severity, on the other hand, can be defined in various ways. In aircraft certification, we automatically think of the severity levels in the certification process - *catastrophic*, *hazardous*, and so forth. But for procedural aspects of safety and certificate management like 14 CFR parts 21, 39 and similar regulatory areas, *severity* can also be defined by organizational objectives such as cost, cost avoidance, and achievement of program objectives.

c. Figure 1 illustrates the basic components of risk in a *risk* assessment. Data describing the exposure to the event and the frequency of occurrence will determine the probability of that event. Risk is the probability of an event taken together with the severity of its outcome. A conditional probability that the event will result in the defined severity is also applied in the process and defined in this order (see more detail about using assumed conditional probability in chapter 3). You can apply this concept of risk assessment to assess the risk of each regulation.

Figure 1: The Basic Components of Risk



2. Applying Risk Assessment to 14 CFR.

a. 14 CFR parts are the minimum safety standards an applicant must comply with to obtain FAA certification or approval. Assessing the risk of potential non-compliance at the regulation level is an important component of the holistic approach to certificate management. Policy offices will use risk assessment results to target resources and develop policy/guidance. SMS tools will also use the risk assessment results as risk indicators in AIR business processes throughout the product lifecycle (for example, issuance of type certification (TC), parts manufacturer approval (PMA), technical standard order authorization (TSOA), policy and guidance development, and designee management).

b. AIR will use the risk assessment dataset to decide resource allocation and workload management supporting the AIR SMS vision, which states:

> "AIR manages safety through a comprehensive systems safety approach, maximizing our value to aviation safety through influence and response to the changing aviation environment."

c. In the next chapter, we show how to assess the risk of potential non-compliance with a regulation by applying the concept in Figure 1 and determining the elements of risk as follows:

(1) Severity: based on an understanding of the regulation's safety objective, historical data, accident/incident data (specific to the regulation), and the resulting conditional probability.

(2) Probability: based on the complexity of the regulatory language and/or method of compliance, and supporting policy and guidance.

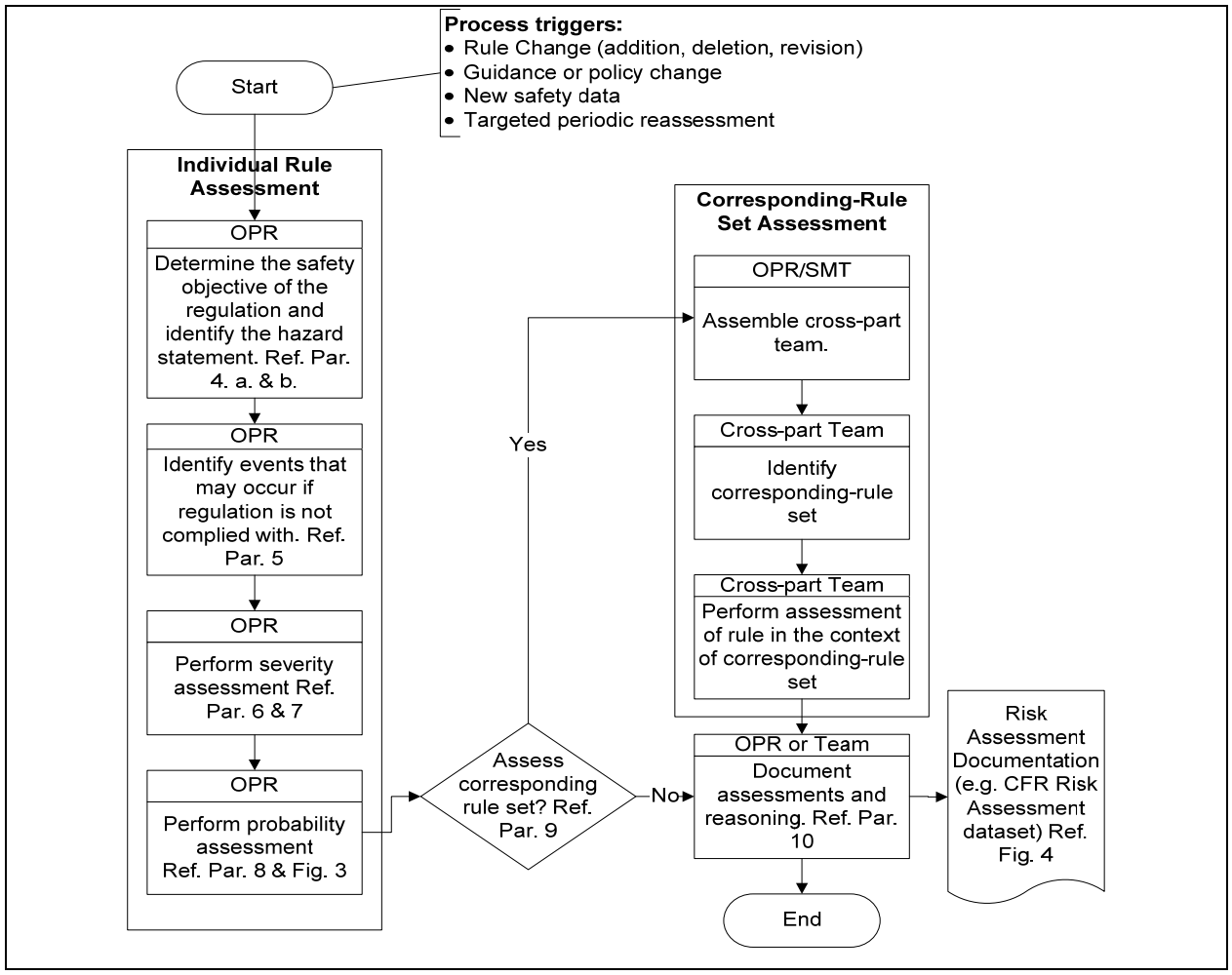
Chapter 3. 14 CFR Risk Assessment

1. 14 CFR Risk Assessment Process.

a. The OPR will use the risk assessment process in this chapter to assess the risks of potential non-compliance with their assigned regulations. We designed this process to standardize assessments across FAA directorates and divisions. The CFR risk assessment process is shown in Figure 2 below. The following paragraphs detail the process steps.

b. When you assess risk according to this order, you have to conduct the assessment based on the attributes of the regulation, historical data specific to the regulation and any supporting policy/guidance material (see chapter 3, paragraph 9). Don't consider external factors such as applicant capability, potential design, and operational environment. The goal of the CFR risk assessment process is to provide data to support resource management and oversight decisions while complying with all applicable regulations. It is *not* about compliance enforcement, comparing/ranking regulations or ignoring any regulations that may be low risk. The risk assessment process in this order is not being conducted to develop, revise or delete regulations.

Figure 2: CFR Risk Assessment Process Flow Chart



2. Steps in Risk Assessment. Risk assessment is performed at the regulation level to document the risk presented by any undesired event(s) caused by an identified hazard. The basic steps are:

a. Determine the safety objective of the regulation and identify the underlying safety/programmatic hazard it is addressing.

b. Identify any undesired events that may occur, if the underlying safety hazard is realized.

c. Assess the severity of non-compliance with the regulation based on the most probable outcome given the occurrence of the undesired event.

d. Assess the probability of non-compliance with the regulation.

e. Assess the regulation in the context of other corresponding regulations, using cross-part team as appropriate.

3. When to Perform a 14 CFR Risk Assessment. AIR standards staffs and policy offices have assessed 14 CFR parts 23, 25, 27, 29, 33, and 35 at amendment levels effective in August 2003, and 14 CFR part 21 at amendment levels effective August 2005. This existing 14 CFR risk assessment dataset must be re-assessed to the amendment levels effective upon release of this order. When this is complete, conduct risk assessments only as-needed, at the discretion of the OPR, or as triggered by the following:

a. Un-assessed Regulation: A regulation not in the 14 CFR risk assessment dataset. This includes Civil Air Regulations (CARs) which are still applied in certification projects and their risk assessment data may be required by safety management tools such as Risk Based Resource Targeting (RBRT) (see chapter 4, paragraph 4). It is recommended that OPRs conduct a risk assessment of their respective CARs at the last amendment level and include the results in their 14 CFR risk assessment dataset.

b. Amended Regulation: Amending a regulation in the CFR risk assessment dataset may have a significant affect on the pre-existing risk value. Reassess the amended regulation to determine if the risk level has changed.

c. Guidance or Policy Change: New or extensively revised guidance or policy could affect the probability assessment of a regulation. Reassess the affected regulation to determine if the risk level has changed.

d. New Safety Data: New audit findings, self-disclosures, accident/incident investigations and other non-compliance root cause analysis, new research, and development data challenging accepted assumptions used in rulemaking or finding compliance could affect a regulation's severity assessment. Reassess the regulation to determine if the risk level has changed.

4. Categorizing the 14 CFR Parts Based on Objectives.

a. Determine the safety objective of the regulation: It's important to understand the safety objective of the regulation. This understanding, along with the hazard statement, help identify the underlying safety/programmatic hazard that is being addressed. Knowledge of the safety hazard leads us to the identification of potential undesired events. Review the regulation, the preamble, and any associated policy or guidance to help determine the safety objective.

b. Identify the hazard: An important first step is to identify the hazard statement associated with the 14 CFR part. The hazard statement is a generic high level description of a condition that could lead to, or contribute to an undesired event. The statement is a framework for the risk assessment. 14 CFR parts, for which AIR is the policy owner, can be grouped under the following two categories, each with a hazard statement:

(1) Technical parts (14 CFR parts 23, 25, 27, 29, 31, 33, and 35) - Minimum safety standards of a technical nature and can directly affect the safety of a product.

Hazard Statement: *The hazard of a potential non-compliance is that a certificated product, or approved part, is operating in the National Airspace System (NAS) and it does not meet the minimum level of safety established by the airworthiness standards. This may lead to an unsafe condition in a product.*

(2) Procedural parts (14 CFR parts 21, 39, 45 and 183) – Non-technical minimum safety standards that establish procedures supporting certification of products and parts. While procedural standards may not directly affect the safety of a product itself, they provide a framework of processes and procedures used to ensure a safe product throughout its life-cycle.

Hazard Statement: *The hazard of potential non-compliance is a failure that would prevent unsafe aeronautical products and parts in the NAS.*

Note: 14 CFR parts 34 and 36 are administered by AIR, but the policy focal is the FAA Office of Environment and Energy (AEE). AIR standards staffs and policy offices may, at their discretion or upon the request of an external user of this data, conduct a risk assessment of 14 CFR parts 34 and 36 with assistance from AEE.

5. Identify Undesired Events.

a. Identify all potential undesired events using knowledge of the failure modes related to the underlying safety hazard of the regulation. Within the scope of the hazard statement and the regulation's safety objective, consider what undesired events may occur if the regulation is not met. It may help if you considered the consequences if the specific regulation did not exist.

b. When multiple paragraphs cover different areas or applications of a regulation, you must identify undesired events and assess severity and probability at the paragraph and/or regulation application level.

c. If you identify multiple undesired events for a single application of a regulation (or paragraph), perform the severity assessment for the most extreme undesired event.

6. Perform Severity Assessment.

a. *Severity* is the level of harm to persons, aeronautical products or parts from an undesired event that may occur when compliance to the minimum safety standard, established by a regulation, is not achieved. The two categories of 14 CFR parts – technical and procedural – have unique severity assessment scales. The two scales address the distinct regulatory subjects of the categories. Technical standards address the hardware, software and operation of the product, while the procedural standards address the processes and methods to gain certification/approval and maintain continued operational safety.

b. It's important to recognize that the consequence of an undesired event can vary in severity. This variation in severity is a function of the conditional probability associated with the undesired event. The final severity level for a potential non-compliance with a particular regulation is the most probable severity resulting from the occurrence of an undesired event. When assessing conditional probability, consider all related service history, test and computation, expert opinion, and other knowledge of similar failures to determine the most probable severity.

7. Severity Levels.

a. Technical Parts. Assess the regulation (14 CFR parts 23, 25, 27, 29, 31, 33, and 35) using the following five levels of severity. Assign a severity level based on the most probable result of a given undesired event.

- Severity Level 5: Product failure leading to fatalities, usually with hull loss.
- Severity Level 4: Product failure leading to serious injuries or possible fatalities, usually with significant hull damage.
- Severity Level 3: Product failure that is manageable by complex crew action, but may lead to injuries and hull damage.
- Severity Level 2: Reduction in product safety not requiring crew actions beyond their capability. Little to no effect on continued safe flight and landing of the aircraft.
- Severity Level 1: No effect on the operational capability of product or crew workload.

b. Procedural Parts. Assess the regulation (14 CFR parts 21, 39, 45 and 183) using the following five levels of severity. Assign a severity level based on the most probable result of a given undesired event.

- Severity Level 5: Failure that can directly introduce or ignore an existing unsafe condition to the aeronautical product or part. May result in revocation (termination) or suspension of certificate or approval.

- Severity Level 4: Failure that, in the presence of other factors, can introduce an unsafe condition to the aeronautical product or part. May result in suspension of certificate or approval.

- Severity Level 3: Failure without immediate safety implications, but will reduce safety margins over time. May result in a need for corrective action issued against a certificate or approval.

- Severity Level 2: Minimal impact, with results compliant with regulations.

- Severity Level 1: Administrative. No impact on the safety of an aeronautical product or part.

c. Considerations for Determining Severity Levels. Consider the following information, as applicable to a specific regulation, when determining severity levels (A particular order/sequence is not implied):

(1) Certification data,

(2) Accident/incident investigation data,

(3) Precursor information,

(4) Lessons learned,

(5) Personal experience of the subject matter experts, and

(6) Continued airworthiness assessment methodology (CAAM).

8. Perform Probability Assessment.

a. Determine the probability that non-compliance to a regulation will occur. The probability assessment is common to the technical and procedural categories of 14 CFR parts. Assess the regulation using the process shown in Figure 3.

b. Consider the following information when determining probability (A particular order/sequence is not implied):

(1) Regulation clarity,

(2) Availability of guidance,

(3) Guidance clarity,

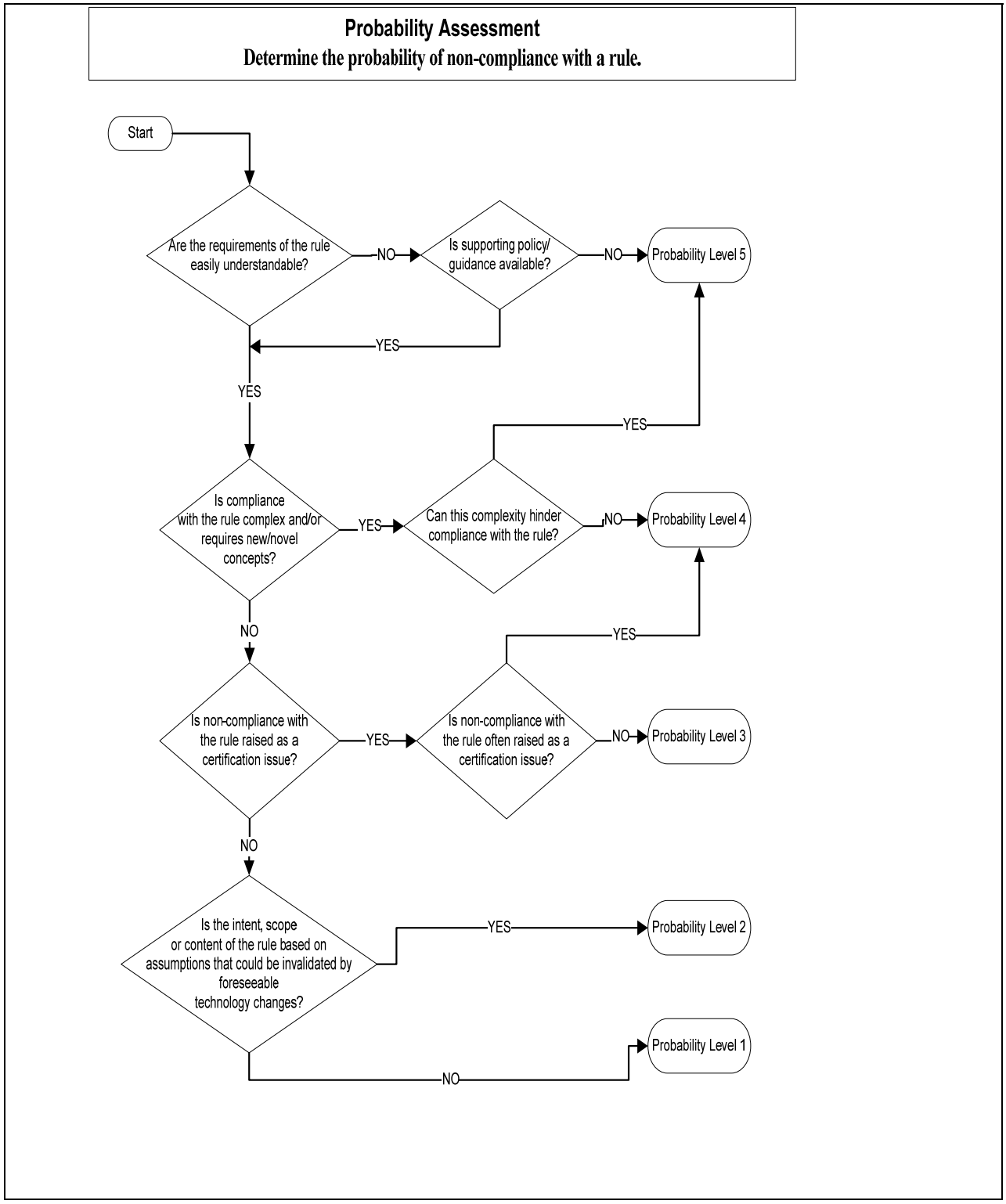
(4) Related issue papers,

(5) Related equivalent level of safety determinations,

(6) Related exemptions, and

(7) Historical evidence of non-compliance, such as information from the Enforcement Information System (EIS).

Figure 3: Probability of Non-Compliance



9. Assessing Regulations in the Context of Corresponding Regulation Set.

a. If you are an OPR assessing a regulation, you should consider any existing assessments of regulations in other 14 CFR parts that have a similar content and/or safety objective. A group of similar regulations is called a corresponding regulation set. If you consider your assessment in the context of this grouping, it will help to:

(1) Ensure consistent application of the assessment criteria across the service,

(2) Capture the best thinking and experience of the subject matter experts across the service,

(3) Foster teaming and synergy across the service,

(4) Identify the connectivity and interrelationships among the regulations, fostering a systems thinking approach, and

(5) Provide a mechanism for including other 14 CFR parts in the future, such as maintenance and operational regulations to account for product life cycle.

b. Consider the following when deciding whether to conduct a cross-directorate assessment:

(1) Is the new assessment different by more than two levels of severity or probability than the previous assessment?

(2) Is the new assessment a result of information that challenged the original premise that the regulation was based on, and may potentially affect the other regulations in the corresponding regulation set?

(3) Does the change in the regulation that triggered the new assessment affect its relationship with the other regulations in the corresponding regulation set? If so, does it still correspond to the other regulations in the set?

(4) Is this a new regulation that may fit into an existing corresponding regulation set? (Consider consulting with a cross-directorate team, as necessary, to identify one.)

(5) Is the new technology addressed by this regulation common to other 14 CFR parts?

c. If you decide to compare the risk assessment to other regulations from a corresponding regulation set, coordinate through the SMT to form a cross-directorate team of applicable subject matter experts. This team will then meet (as required) to identify the corresponding regulation set and to compare the severity and probability assessments, per chapter 3 of this order.

10. Documenting the Results of the Risk Assessment.

a. The results of the CFR risk assessment conducted according to this order must be documented by the OPR. The following are minimum requirements for documenting the risk assessment dataset. Document the risk assessment of each 14 CFR part with column headings as shown in Figure 4 and described below.

(1) CFR part – enter the applicable part number.

(2) CFR sub-part –applicable sub-part (A, B, C, D, E, F, and so on).

(3) Section No. – enter only the base regulation number (729, not 23.729).

(4) Sub-section – enter only the designator for the paragraph under a regulation as applicable (for example (g), (a)(1), (b)(2)(ii)). If you enter one or more paragraphs under a regulation with a different assessment, then enter all the paragraphs under the regulation in separate rows in the table.

(5) Reg. Title – enter the title of the regulation.

(6) Config. – if there are different product configurations covered by the same regulation that have different assessments, make multiple entries of the regulation in the table and specify the configuration in the *Config* field (for example, turbine vs. reciprocating engine).

(7) Amdt. Level – enter the amendment level without the 14 CFR part number (use 54 instead of § 23-54).

(8) Severity –enter the severity level as assessed per this order.

(9) Probability –enter the probability level as assessed per this order.

(10) Risk Assessment Rationale – enter the rationale for the severity and probability assessments (as per this order).

(11) Assessing Branch – enter the branch routing code of the group that performed the assessment (ACE-111, AIR-110, and so forth).

(12) Risk Assessment Date – enter the date of assessment.

b. Each row of the table should be a complete record for the amendment of a given regulation in that row.

c. If the same rationale applies to different regulations, enter the rationale separately for each regulation.

Figure 4: Example of Risk Assessment Table

CFR part	23
CFR sub-part	D
Section number	729
Sub-section (blank if N/A)	(g)
Regulation title	Landing gear extension and retraction system
Configuration (blank if N/A)	
Amendment level	49
Severity	5
Probability	4
Risk Assessment rationale	23.729(g) covers protecting equipment in wheel wells from tire burst, snow, ice, and so forth. Non-compliance could have catastrophic results
Assessing branch	ACE-111, ACE-112
Risk Assessment date	2/29/04

Chapter 4. Using CFR Risk Assessment Data

1. Mitigating Risks. Comprehensive risk management includes risk mitigation. Based on the risk assessment results we may accept or take action to reduce the risk. Since the factors that influence risk can change, the process triggers in chapter 3 of this order ensure that the dataset is kept current. This chapter discusses various uses of risk assessment data to mitigate risk.

2. The CFR Risk Assessment Dataset. A prerequisite to using risk assessment data is that you understand that the CFR risk assessment dataset may be subjective in the following ways:

a. Most of the risk assessments are based on the overall knowledge of a subject matter expert.

b. Corresponding regulations may not be similar in terms of complexity or method of compliance. Generally, if two regulations address the same aircraft system or subsystem, we consider them corresponding. Yet some regulations are written with significantly different levels of detail and these differences can affect the risk assessments.

3. Uses of 14 CFR Risk Assessment Data. AIR personnel may use 14 CFR risk assessment data in their daily work, when making decisions in:

a. Training development. Consider high-risk regulations as candidates for added training.

b. Targeting research, engineering, and development (RE&D) program resources. Consider regulations with high severity levels for potential research to mitigate risk from non-compliance.

c. Targeting areas for continued operational safety (COS) evaluations. Identify focus areas for accident and incident database review. Regulations with a high probability of non-compliance may indicate precursors for similar accidents and incidents.

4. Input to the RBRT Tool.

a. At this time, the 14 CFR risk assessment severity and probability levels are an input to the RBRT tool. RBRT is a tool designed for AIR business processes, such as type and production certification. RBRT employs a standardized, data driven, risk-based methodology to help AIR staff establish work priorities and allocate resources. While RBRT continues to use the 14 CFR dataset, it will transition to using the *updated* dataset derived from the CFR risk assessment process in this order, adding severity and probability levels of regulations that are addressed in a RBRT assessment.

b. Refer to FAA Order IR 8110.102, *Implementing Risk Based Resource Targeting, and Applicable Training for Further Information on RBRT*.

Chapter 5. Continual Improvement

1. Improving the Process.

a. This order presents a risk assessment process for 14 CFR regulations based on knowledge of the regulation's safety objective, associated hazards, and potential non-compliance. Personnel conducting the risk assessments should review the methods in this order and identify potential process adjustments and ways to achieve standardization across directorates.

b. The risk assessment methodology in this order primarily uses a qualitative assessment with quantitative sources suggested for the severity and probability assessments. Our intention is to create a risk assessment process that evolves from being qualitative to becoming mostly quantitative. We encourage standards staff and policy office personnel to identify and develop more data sources for their risk assessments so they can move from qualitative to quantitative assessments. When using qualitative estimates to determine the severity or probability levels, identify any equivalent quantitative data. If the data source does not exist, identify where, how and when the appropriate data can be collected. The most important part of this evolution is gathering data to validate, and then replace, qualitative estimates.

c. Anyone using a risk assessment dataset is encouraged to send feedback on the assessments to the applicable OPR.

d. The SMT will review proposed changes and ensure standardized implementation of accepted changes. AIR-100 will revise this order accordingly.

2. Improving the Assessments.

a. Standards staffs and policy offices reassess the regulations based on:

(1) Their experience with:

- Applying the regulations in certification projects,
- Continued operational safety projects,
- Participation in industry standard groups, and
- Other civil aviation authorities.

(2) Risk assessment user feedback through the applicable Aviation Safety Organization (AVS) Quality Management System process.

(3) The process triggers listed in chapter 3, paragraph 3 of this order.

b. Any reassessment of regulations by the policy staff will follow this order's procedures. When reassessing, consider the effect of any change to the 14 CFR part as a whole, as well as its effect on the other regulations in the corresponding regulation set.

Appendix A. Background on 14 CFR Risk Assessment

1. AIR SMS. As the FAA has focused on preventing unsafe conditions in the National Airspace System (NAS), AIR strives to reduce or mitigate this fundamental hazard. The AIR SMS program takes a holistic approach to certificate management, one that considers safety throughout the entire product life cycle. AIR SMS supports an integrated approach to the AVS mission of safety oversight. We refer to the AIR SMS as a system, while recognizing that it will also be an integrated subsystem of AVS.

2. Assessment of 14 CFR Parts. To support the AIR SMS vision, the SMT implemented a way to assess the risks of non-compliance associated with the 14 CFR parts. AIR standards staffs and policy offices assessed 14 CFR parts 23, 25, 27, 29, 33, and 35 at amendment levels effective in August 2003, and 14 CFR part 21 at amendment level effective August 2005, for both the severity and probability of non-compliance for certification projects. Assessments were conducted by teams in each policy staff representing the flight, structures, systems, propulsion, and operating limitations disciplines. These teams assessed their respective regulations individually, recording results in a standardized spreadsheet format.

Appendix B. Definitions, Acronyms and Related Publications

1. Definitions.

a. Administrative: No impact on the safety of an aeronautical product or part. Furthermore, any concern may be alleviated by making changes to existing procedures and/or processes.

b. CFR risk assessment dataset: regulations, their amendment levels, other descriptive data, and corresponding severity and probability levels determined as a result of the process in this order.

c. Conditional probability: probability of a given outcome, when a base event has occurred.

d. Corresponding regulation: collection of regulations from various 14 CFR parts with similar requirements or objectives, or regulations that depend on the compliance findings from another regulation in a different part.

e. Cross-directorate team: group who assess the risks of a regulation in the context of its corresponding regulation set. Team members are experienced in the discipline the regulations fall under such as flight, structures, systems, propulsion, and operating limitations.

f. Failure Mode: the manner in which a system fails. Generally determined based on Service history or expert design and/or operational knowledge.

g. Hazard: Condition, occurrence, or circumstance that could lead to or cause an undesired event. Sometimes termed a “threat.”

h. Office of Primary Responsibility (OPR): in the context of this order the OPR is a policy or standards office responsible for a particular 14 CFR part.

i. Probability of non-compliance: assessment of the likelihood that an applicant will not comply with a regulation.

j. Process trigger: An event that drives the assessment or reassessment of risk in accordance with this order for a given regulation.

k. Programmatic hazard: a hazard that may result in a failure to achieve program objectives.

l. Qualitative assessment: analysis primarily based on logic and logical inference.

m. Quantitative assessment: analysis relying mainly on mathematical or statistical methods.

n. Risk analysis: objectively characterizing hazards by their probability and severity. Process can be either qualitative or quantitative. Risk analysis helps us identify objectively the risks with a particular safety issue, business challenge, or process.

o. Risk: expression of the impact of an undesired event measured in severity and probability.

p. Risk management: an organized, systematic decision-support process that identifies risks and mitigates or eliminates them to achieve program or organizational objective.

q. Safety Management: how AIR makes safety decisions and applies resources throughout product design, certification, operation, maintenance, and modification to further reduce the accident rate.

r. Severity: level of harm or loss resulting from an outcome of an undesired event.

s. Undesired event: triggering occurrence, condition, failure, malfunction, or circumstance to be evaluated by risk analysis.

2. List of Acronyms Used in Order.

14 CFR	Title 14 of the Code of Federal Regulations
AVS	Aviation Safety Organization
AC	Advisory circular
AEE	Office of Environment and Energy
AIR	Aircraft Certification Service
CAAM	Continued airworthiness assessment methodology
CARs	Civil Air Regulations
COS	Continued Operational Safety
EIS	Enforcement Information System
FAA	Federal Aviation Administration
NAS	National Airspace System
OPR	Office of Primary Responsibility
PMA	Parts manufacturer approval
RBRT	Risk Based Resource Targeting
RE&D	Research, Engineering and Development
RGL	Regulatory and Guidance Library
SMS	Safety Management System
SMT	Standards Management Team
TC	Type certificate
TSOA	Technical standard order approval

3. Related Publications.

- FAA Order 8110.4, *Type Certification*
- FAA Order 8110.52, *Type Validation and Post-Type Validation Procedures*
- *FAA System Safety Handbook*; December 30, 2000
- FAA Order IR 8110.102, *Implementing Risk Based Resource Targeting (RBRT)*

Appendix C. Administrative Information

1. Distribution. Distribute this order to the Washington headquarters division and branch levels of AIR, to all AIR directorates, ACOs, and manufacturing inspection offices, manufacturing inspection district offices, manufacturing inspection satellite offices, aircraft certification and airworthiness branches of the Academy, and the AIR International Policy Office.

2. Authority to Change This Order. The issuance, revision, or cancellation of the material in this order is the responsibility of the AIR Certifications Procedures Branch (AIR–110,). This branch will accomplish all changes, as required, to carry out the FAA's responsibility to provide for managing revoked, suspended, surrendered, and abandoned type certificates and supplemental type certificates.

3. Suggestions for Improvement. If you find deficiencies, need clarification or want to suggest improvements to this order, send FAA Form 1320-19, Directive Feedback Information, (written or electronically) to the Aircraft Certification Service, Planning and Financial Resources Management Branch, AIR-530, Attention: Directives Management Officer. You can also send a copy to the Aircraft Engineering Division, AIR-100, Attention: Comments to Order xxxx. If you urgently need an interpretation, contact Certification and Procedures Branch AIR-110 at 202-267-9588. Always use Form 1320-19, in appendix D, to follow up each verbal conversation.

4. Records Management. Refer to Orders 0000.1, FAA Standard Subject Classification System; 1350.14, Records Management; and 1350.15, Records, Organization, Transfer, and Destruction Standards; or your office Records Management Officer or Directives Management Officer for guidance regarding retention or disposition of records.

Appendix D. FAA Form 1320-19 Directives Feedback Information
Directive Feedback Information

U.S. Department
of Transportation

**Federal Aviation
Administration**

Directive Feedback Information

Please submit any written comments or recommendations for improving this directive, or suggest new items or subjects to be added to it. Also, if you find an error, please tell us about it.

Subject: Order_____

To: Directive Management Officer, ____AIR-530_____

(*Please check all appropriate line items)*

☐ An error (procedural or typographical) has been noted in paragraph _____ on page _____.

☐ Recommend paragraph _____ on page _____ be changed as follows:
(attach separate sheet if necessary)

☐ In a future change to this directive, please include coverage on the following subject:
(briefly describe what you want added)

☐ Other comments:

☐ I would like to discuss the above. Please contact me.

Submitted by: _____ Date: _____

FTS Telephone Number: _____ Routing Symbol: _____

FAA Form 1320–19 (8-89)(Representation)