

GUIDANCE FOR SMALLER 'NON-COMPLEX' AIR
TRAFFIC SERVICE PROVIDERS ON ACHIEVING
COMPLIANCE WITH COMMISSION
IMPLEMENTING REGULATION (EU) No 2017/373

Contents

Section 1.....	3
Introduction	3
What does 2017/373 replace?.....	3
What is the difference between 1035/2011 and the new regulation?	4
How is the new regulation structured?	4
The layout of the regulation	5
Acceptable Means of Compliance (AMC)	5
Complex and Non-Complex organisations.....	5
Limited certificates.....	6
Section 2.....	7
The Compliance Matrices	7
Which sections do I fill in?	8
Section 3 What's Changed?	10
The Change Management procedure	10
Example flow chart for a change management procedure.	17
Management Systems:	18
Safety Management System	26
Section 4 New Terminology.	30
Safety Criteria	30
Safety Acceptability	31
Absolute and Relative Risk.....	32
Proxies.....	33

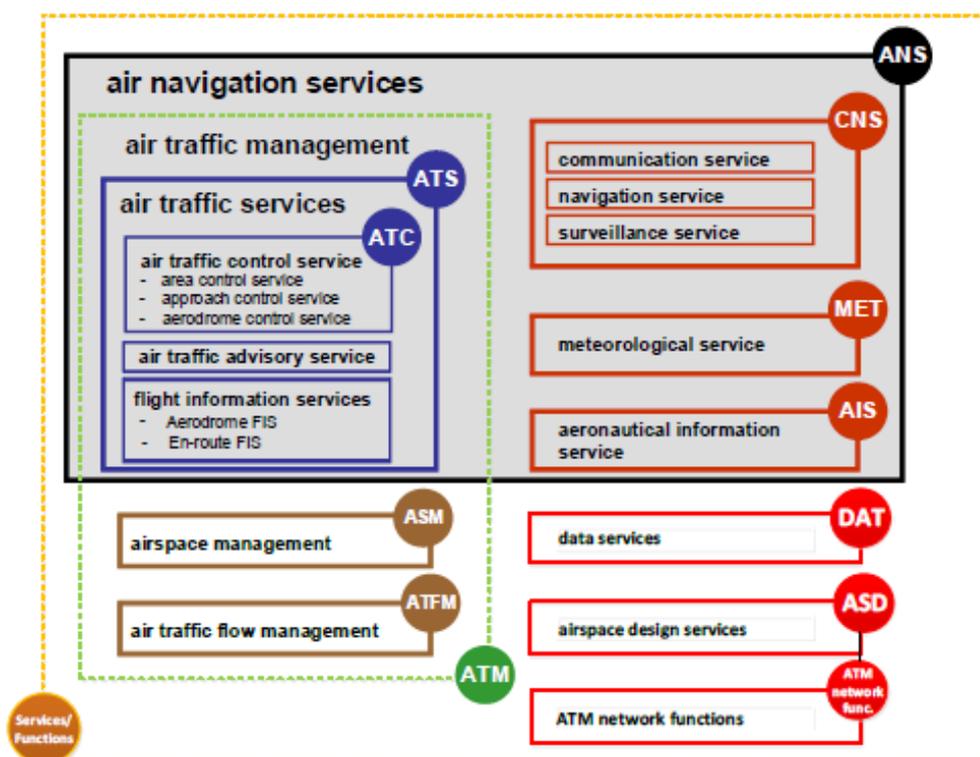
Section 1

Introduction

Commission Implementing Regulation (EU) 2017/373 was published on the 1st March 2017.

The regulation applies to all Air Traffic Management and Air Navigational Service providers and is commonly known as the ATM/ANS IR.

This diagram shows all the service providers to which the new regulation applies.



This publication is intended to provide guidance to the smaller service provider who are currently certified to provide Air Traffic Services (ATS), which can be either an Air Traffic Control (ATC) or Aerodrome Flight Information Service (AFIS), and those smaller ANS providers who also provide Communication, Navigation and Surveillance (CNS) and Meteorological Services.

It should be clearly understood that this document has no legal status and should not be considered as an acceptable or alternative means of compliance and is provided for guidance only.

What does 2017/373 replace?

Regulation 2017/373 replaces several large areas of current legislation but most importantly regulation 1035/2011 which all ATS providers are currently compliant with and certified against.

Regulation 2017/373 becomes applicable in law on the 2nd January 2020 and regulation 1035/2011 is repealed.

The CAA has the whole of 2020 to issue certificates under this new legislation, so if you do not hold a 2017/373 certificate on the 2nd January 2020, it does not mean that you cannot continue to provide a service. Your existing 1035/2011 certificate will be enough.

The regulation states;

Certificates that have been issued in accordance with Implementing Regulation (EU) No 1035/2011 shall be deemed to have been issued in accordance with this Regulation.

What is the difference between 1035/2011 and the new regulation?

For service providers within the scope of this guidance, not very much, except to say that the new regulation is more precise.

For example, 1035 Annex I 3.2 requires that service provider have a quality management system and gave a list of 4 requirements. Those requirements were quite vague and needed to be interpreted as to exactly what was required.

The new regulation is much clearer. It does not refer to a Quality Management System, just a Management System and provides line by line detail as to what should be in it.

How is the new regulation structured?

The regulation is divided into Annexes and each annex is divided into Subparts, sections and in some cases chapters. Not all Annexes, subparts, sections or chapters are applicable to all providers.

The annexes as follows:

Annex II Part AR are the Authority Requirements. These are only applicable to the CAA.

All the other Annexes are ORs, Organisational Requirements and in some cases TRs Technical Requirements. These are the requirements that units must comply with dependant on the type of service provided.

Annex III Part OR	Applicable to all providers. This annex details the requirements for a Management System.
Annex IV Part ATS	Applicable to all ATS providers. This annex details the requirements for Safety Management Systems, Change Management, ATS equipment and Human Factors relating to ATCOs.
Annex V Part MET	Applicable to all ATS providers who are currently certified as MET providers and sets out the general requirements for meteorological services and specific requirements for requirements for aeronautical meteorological stations (units). The bulk of this annex is only applicable to the MET Office.
Annex VI Part AIS	Applicable only to Aeronautical Information Service providers (NATS).
Annex VII Part DAT	Applicable only to data providers. This annex is only applicable to pan European service providers and is overseen by EASA.
Annex VIII Part CNS	Applicable to all providers who are currently certified as CNS providers. Note the content of this part is currently no different from that found in 2011/1035.
Annex IX Part ATFM	This part cross refers to existing regulation 255/2010 (laying down common rules on air traffic flow management) and in part remains applicable to ATS providers.
Annex X Part ASM	Applicable only to providers of Air Space Management (NATS).
Annex XI Part ASD	Applicable only to Air Space Designers.
Annex XII Part NM	Applicable only to the Network Manager.
Annex XIII Part PERS	Applicable to all ATS/CNS providers who employ Air Traffic Electronics Personnel (ATSEP).

If your unit is currently certified to provide ATS/CNS/MET only annexes III, IV, V, IX and XIII will apply.

If your unit is an Air Ground Communications Service provider currently holding a CNS certificate only annex III and VIII will apply and possibly annex XIII.

The layout of the regulation

Within each annex the individual requirements are detailed and identified.

In the example below from Annex III this is Organisational Requirement, Subpart A, 035.

ATM/ANS.OR.A.035 Demonstration of compliance

Usually, but not always, there will be an Acceptable Means of Compliance associated with a requirement which will be identified as shown below. This is AMC 1. There may be more i.e. AMC2 ,3 etc.

AMC1 ATM/ANS.OR.A.035 Demonstration of compliance

In addition, there may be Guidance Material (GM) associated with a requirement or AMC and is identified as shown below. This is GM1. There may be more i.e. GM3,4 etc.

GM1 ATM/ANS.OR.A.035 Demonstration of compliance

Note: The colours shown above are the colours used in the EASA Easy Access version of the regulation to denote Requirements, AMC and GM.

The Easy Access version is available for download from the EASA web site [East Access Version](#).

Acceptable Means of Compliance (AMC)

AMC is supposed to be what its name implies i.e. this is a method of complying with a requirement or part of a requirement that has been deemed acceptable by EASA.

Therefore, complying with the AMC will mean that the service provider is compliant with the requirement or the part of the requirement to which the AMC applies.

However, this does not always seem to be the case. There are some instances throughout the regulation where the AMC appears to either add additional requirements or seems more like guidance material.

Complex and Non-Complex organisations

Regulation 373 brings in the concept of complex and non-complex organisations.

The intention of this concept is to apply 'proportionality, i.e. smaller non-complex organisations are exempt from some of the requirements of the regulation or the required method of compliance can be demonstrated in a more basic manner than that required by complex organisations.

Your organisation can be defined as a non-complex provider if you only provide air traffic services in one or more of the following categories:

- *aerial work;*
- *general aviation;*
- *commercial air transport limited to aircraft with less than 10 tonnes of maximum take-off mass or less than 20 passenger seats;*

- *commercial air transport with less than 10 000 movements per year, regardless of the maximum take-off mass and the number of passenger seats; for the purposes of this provision, 'movements' means, in a given year, the average over the previous three years of the total number of take-offs and landings.*
- *an air navigation service provider providing aerodrome flight information services by operating regularly not more than one working position at any aerodrome*

In addition, the following air navigation service providers will also be considered as non-complex:

- *an air navigation service provider, other than a provider of air traffic services, with a gross annual turnover of EUR 1 000 000 or less in relation to the services they provide or plan to provide;*
- *an air navigation service provider providing aerodrome flight information services by operating regularly not more than one working position at any aerodrome.*

You will note that this is the same as that detailed in regulation 1035/2011, which enabled organisation to apply for a 'Derogated' certificate where they met these requirements, therefore, if you currently hold a 'Derogated' certificate you can be considered as non-complex.

Limited certificates

This regulation removes the term 'Derogated' in relation to the type of certificate held.

These are now called 'Limited' certificates and organisations may apply for a limited certificate if they meet the requirements as a non-complex organisation as shown above.

Note that it is not mandatory to have a limited certificate even if you meet the requirements to be declared as non-complex.

The advantage of holding a limited certificate is that compliance with certain financial requirements do not need to be demonstrated and it also has an impact on Annex XIII ATSEP requirements.

Holders of a limited certificate cannot provide cross border services or make provision to provide their services in another Member State.

Section 2

The Compliance Matrices

As with regulation 1035/2011 the CAA has developed compliance matrices for regulation 2017/373 to enable units to declare how they comply with the regulation.

The 373 compliance matrices have been designed differently from the 1035 matrices.

Because 373 is more precise in its requirements the matrix has been designed in the same way. Where a requirement consists of multiple parts these have been broken down to individual questions with its associated AMC.

At first glance the compliance matrix seems to be more complex, but it should be easier to complete, as generally it is only asking one question, 'Provide a reference to where compliance is indicated'.

This means:

'This is the regulation or part of a regulation and if applicable its AMC. Which of your documents contains the information that would indicate compliance?

Don't forget this is not a re-certification exercise, all the CAA wants to know is how compliant your organisation is with the new regulation and what work needs to be done to ensure full compliance.

You should use the compliance matrix as a checklist to this end.

The matrices also contain the regulations and AMC in full and are therefore not as big as the number of pages would suggest.

Against each requirement or AMC a link is provided to view the actual legislation.

Once you have viewed the legislation there is a link to return you to where you were in the compliance matrix.

Which sections do I fill in?

There are a large number of compliance matrices because the regulation has a large number of annexes. You will only need to complete the matrices which apply to the type of service you are providing.

At the front of each matrix there is the following table which tells you which bits you will need to complete.

Compliance Matrix	Compliance Matrix Section	ATS	MET			AIS	CNS	ATFM		ASM	ASD
			Local only	METARS	Forecast			NATS (En Route)	ATS Units		
ANNEX III	Section 1	X	X	X	X	X	X			X	X
	Section 2	X	X	X	X	X	X			X	X
	Section 3	X	X	X	X	X	X				
	Section 4	X	X	X	X	X	X			X	X
	Section 5	X									
	Section 6	*	X	X	X	X	X			X	X
ANNEX IV	Sections 1 to 4	X									
ANNEX V	Section 1		X	X	X						
	Section 2		X	X							
	Section 3				X						
	Section 4				X						
	Section 5				X						
	Section 6										
	Section 7				X						
ANNEX VI						X					
ANNEX VIII							X				
ANNEX IX	Section 1							X			
	Section 2								X		
ANNEX X									X		
ANNEX XI											X
ANNEX XIII							X				
*ANNEX III Section 6 may be applicable to some ATS providers. See notes in Section 6											

Also, as mentioned before, if you hold a derogated certificate under 1035, you will hold a limited certificate under 373, which exempts you for some parts of the matrix. Which parts will be clearly identified within the compliance matrix.

If you do not hold derogated/limited certificate you may still be considered as non-complex which will exempt you from the same requirements as a derogated/limited certificate holder.

To establish if your organisation is non-complex the following list is provided at the front of applicable Annexes compliance matrices to enable you to establish if your organisation is complex or non-complex.

Within this compliance matrix some of the requirements are marked as being applicable only to Complex Service Providers or Non-Complex Service Providers.

Your organisation is a non-complex provider if you hold a limited (derogated) certificate or only provide air traffic services in one or more of the following categories:

- aerial work;
- general aviation;
- commercial air transport limited to aircraft with less than 10 tonnes of maximum take-off mass or less than 20 passenger seats;
- commercial air transport with less than 10 000 movements per year, regardless of the maximum take-off mass and the number of passenger seats; for the purposes of this provision, 'movements' means, in a given year, the average over the previous three years of the total number of take-offs and landings.
- an air navigation service provider providing aerodrome flight information services by operating regularly not more than one working position at any aerodrome

In addition, the following air navigation service providers will also be considered as non-complex:

- an air navigation service provider, other than a provider of air traffic services, with a gross annual turnover of EUR 1 000 000 or less in relation to the services they provide or plan to provide;
- an air navigation service provider providing aerodrome flight information services by operating regularly not more than one working position at any aerodrome.

Is your organisation a Complex or Non-Complex Organisation?						
COMPLEX ORGANISATION	YES	<input type="checkbox"/>	(click on the appropriate box)	NON-COMPLEX ORGANISATION	YES	<input type="checkbox"/>

Check your organisations service provision against the list and tick the appropriate box for complex or non-complex.

Section 3 What's Changed?

373 is far more detailed than 1035 and line by line prescribes precise requirements whereas 1035 was more general in its approach.

The Change Management procedure

Change management featured highly in the previous regulation 1035/2011. Regulation 2015/373 moves this up a gear.

All units will have a change management procedure within their SMS, the big change is that the change management procedure must be a separate procedure which is uniquely identified as this procedure is one of two items that needs formal approval by the CAA.

The requirements for the content of a change management procedure are spread across several areas of the regulation. To make it more accessible, all requirements for change management have been grouped together in the Annex III compliance matrix, Section 4.

It is recommended that you extract the change management procedure from your SMS and reproduce it as a standalone procedure as part of your management process, with a unique number and version control.

When completed you should send this for approval to the CAA along with your completed compliance matrices.

Your change management procedure should contain the following:

2017 373 ATM/ANS.OR.B.010 The items below must be documented within your change management procedure.	Notes
ATM/ANS.OR.B.010(a) AMC1 ATM/ANS.OR.B.010(a) (f) A change identification process i.e. once a change has been proposed the change identification process should determine if the proposed change is viable, realistic and practical to implement and what are the potential benefits before deciding to initiate the change management process.	The wording used is not totally clear but basically it is asking that when a possible change is identified the change management procedure should indicate that the proposal will be reviewed to ensure that there is a benefit in introducing the change. Will it make things safer, more efficient, is it doable? Etc.
ATM/ANS.OR.B.010 (c) A process for assessing if the change management procedure content is suitable for the proposed change or will it be necessary to deviate from the approved procedures to implement the change and a process for requesting an exemption from the CAA to deviate from the approved procedures.	Once the above has identified that the change is viable the next step is to check that the change can be implemented safely using your approved change management procedure. Exceptionally, for large or complex changes your documented procedure may not be adequate to manage the change. In which case you must ask the CAA for approval to deviate from your approved change management procedure and supply the necessary documentation to demonstrate how the change will be managed. It is unlikely that this is applicable to smaller providers. However; your change management procedure should state that the proposed change will be reviewed to ascertain if it can be safely implemented using the organisation's approved change management procedure, or will it be necessary to apply for a deviation.
ATM/ANS.OR.B.010(a) For changes that affect the functional system a process to determine the scope of the change i.e. which parts of the functional system will be impacted on by the change.	GM1 ATM/ANS.OR.B.010(a) (a) (2) provides more information. The change management procedure should state that the change will be reviewed to determine the scope and impact of the change. Is this a minor administrative change or will the change impact on your organisations service provision i.e. the functional system, 'procedures, people, equipment, hardware and software'. The review should determine which parts of the functional system are affected by the change.

<p>ATM/ANS.OR.B.010(a) A process for determining if a safety assessment or safety support assessment will be required to manage the change.</p>	<p>GM1 ATM/ANS.OR.B.010(a) (c) (1) (iii) provides more information.</p> <p>If it is identified above that the proposed change is a change to the functional system, it will need some form of safety assurance to implement. For most small providers this will be solely a safety assessment. Your change management procedure must state that the proposed change will be reviewed to ascertain if a safety assessment is required.</p> <p>If your organisation provides a service to another provider and it has been identified in the review above that this service is impacted upon by the proposed change then your change management procedure must state that this will require the production of a safety support assessment.</p>
<p>ATM/ANS.OR.B.010(a) AMC1 ATM/ANS.OR.B.010(a) (c)</p> <p>The roles and activities for managing the change and for developing the safety assessment or safety support assessment as applicable.</p>	<p>Once the above has been completed the change management procedure must include a process to determine who within your organisation will be responsible for implementing the change and producing the necessary safety assessment or safety support assessment.</p>
<p>ATM/ANS.OR.B.010(a) A process for determining if there is enough competence available to develop the safety assessment or safety support assessment i.e. will a contracted organisation be required to develop the safety assessment/safety support assessment.</p>	<p>GM1 ATM/ANS.OR.B.010 (a) (c) (1) (i) provides more information.</p> <p>Depending on the size, complexity and impact of the change the above process may well determine that your organisation does not have people with enough experience and competence to manage the change and produce the necessary safety assurance documentation. Your change management procedure must include a review of staff capabilities to determine if the proposed change can be managed 'in house' or will external contractors be required.</p>

ATM/ANS.OR.B.010(a)
AMC1 ATM/ANS.OR.B.010(a) (b)

The format and content of safety assessments (ATS.OR.205), safety criteria (ATS.OR.210) or safety support assessments (ATM/ANS.OR.C.005) and any other mitigation methods used.

This is where it gets a little complex! If you are an ATS provider your organisations change management procedure should detail what should be in a safety assessment.

ATS.OR.205 provides detail as to what constitutes a safety assessment (safety case) of a change to a functional system and is complex.

For most small ATS provides the list provided below should be adequate for including within the change management procedure as to the proposed contents of a safety assessment.

Safety Assessment contents

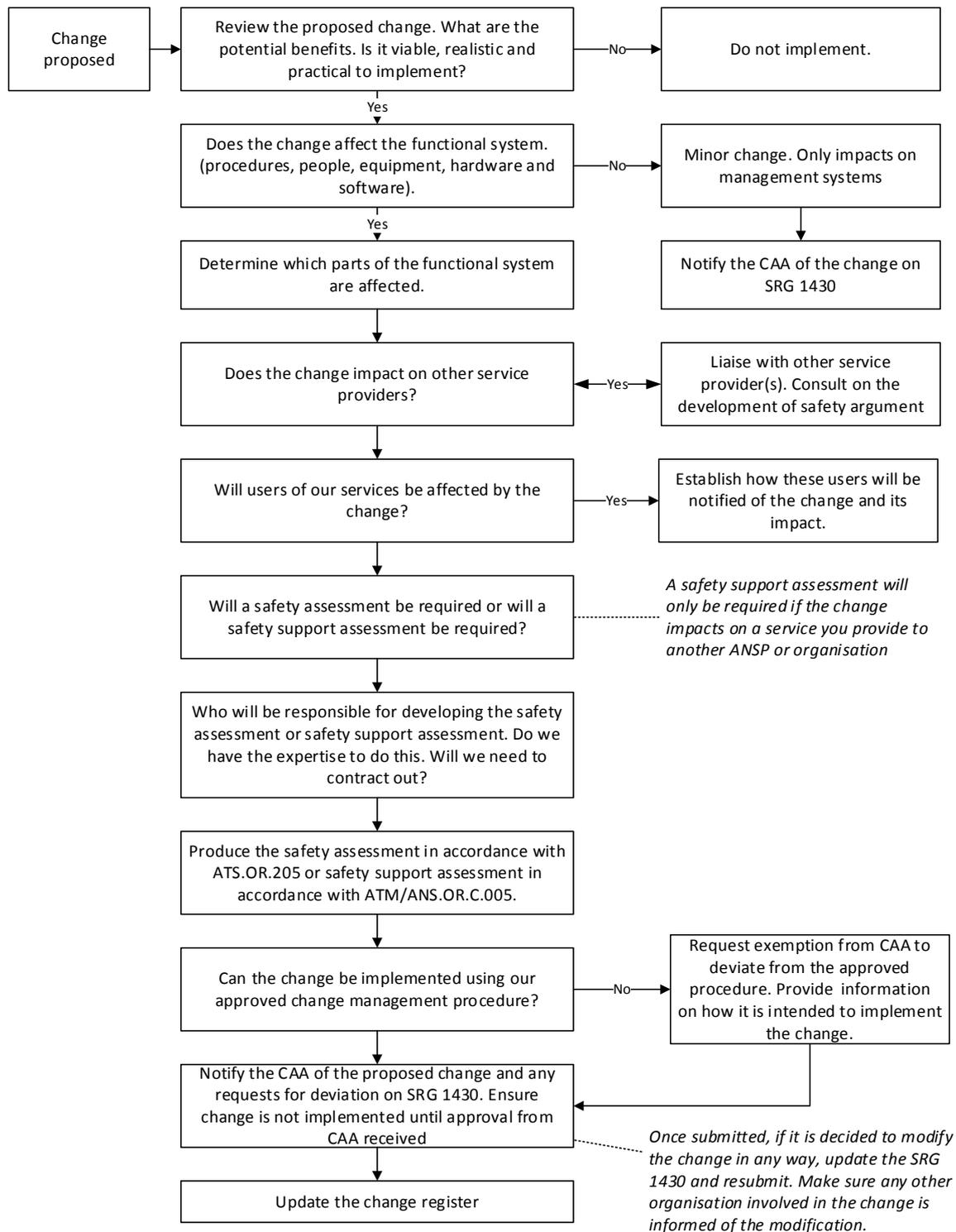
- What is being changed?
- What are the interfaces and/or interactions of the change with the rest of the functional system?
- Does the change alter the way the functional system or any part of the functional system operates?
- What are the stages for implementing the change from deciding to implement to transitioning into service?
- Will there be any degraded modes of operation during the change implementation?
- The identification of hazards.
- The analysis of the risks involved in implementing the change i.e. the results of risk assessments, any mitigation and the acceptability of the resulting risk level.
- The analysis of the risks involved after implementing the change i.e. will the functional system be as safe after the change as it was before the change.
- How is the changed functional system to be monitored after the change has been implemented to ensure the above safety criteria are met?
- provide assurance, via a documented and valid argument that the safety criteria are valid, will be satisfied and will remain satisfied after the change has been implemented. (See section 4 regarding Safety Criteria).

	<p>If you are providing any service to another service provider (usually a CNS service) and that service is being subjected to a change, then for this service, a safety assessment will not be required but a safety support assessment will. (note this will not be applicable to most, if not all, small or non-complex providers). If this applies to your organisation your organisations change management procedure should detail what should be in a safety support assessment.</p> <p>ATM/ANS.OR.C.005 provides detail as to what constitutes a safety support assessment of a change to a functional system and is complex. For most small ATS provides the list provided below should be adequate for including within the change management procedure as to the proposed contents of a safety support assessment.</p> <p>Safety Support Assessment</p> <ul style="list-style-type: none">• What is being changed?• What are the interfaces and/or interactions of the change with the rest of the functional system?• Does the change alter the way the functional system or any part of the functional system operates?• What are the stages for implementing the change from deciding to implement to transitioning into service?• Will there be any degraded modes of operation during the change implementation?• An argument that the service will behave as specified and continue to do so post the change implementation.• How is the changed functional system to be monitored after the change has been implemented to ensure the service behaves as specified?
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<p>AMC1 ATM/ANS.OR.B.010(a) (b) cross reference to ATM./ANS.OR.A.045 (a) (3)</p> <p>Where the change involves one or more service providers a process for consultation and for the development of an overarching safety argument</p>	<p>The change management procedure must state that if the review of the change indicates that it will impact on other service providers, those other service providers must be consulted to ensure that an overarching safety argument can be developed.</p>
<p>ATM/ANS.OR.B.010(a)</p> <p>A means of identifying if other organisations or service users will be affected by the change and a process for communicating details of the change to those affected</p>	<p>GM1 ATM/ANS.OR.B.010(a) (c) (1) (vii) (viii) provides more information.</p> <p>The change management procedure must describe a process for identifying any users of their services that may be impacted by the change and a describe the method of informing them about the change.</p>
<p>ATM/ANS.OR.B.010 (b) (1)</p> <p>A process for notifying the CAA of changes that affect the functional system.</p>	<p>AMC1 ATM/ANS.OR.B.010 (a) (d) and (e) provides more information</p> <p>The change management procedure must detail how changes to the functional system will be notified to the CAA. I.e. form SRG 1430.</p>
<p>ATM/ANS.OR.A.040 (b)</p> <p>A process for notifying the CAA of changes that do not affect the functional system or require prior approval.</p>	<p>AMC2 ATM/ANS.OR.A.040(b)Provides more information.</p> <p>The change management procedure must detail how changes that do not affect the functional system will be notified to the CAA i.e. management systems and safety management systems I.e. form SRG 1430.</p>
<p>ATM/ANS.OR.A.045 (b)</p> <p>A process for ensuring that once the change is notified to the CAA any modifications to the change proposal are also notified to the CAA and to any other service providers affected by the change.</p>	<p>The change management procedure must include a process that requires that if the notified change is itself changed this must be notified to the CAA and any affected service providers.</p>

<p>ATM/ANS.OR.A.045 (c)When a notified change is selected for review by the CAA the change management procedure should ensure that the change or any parts of the change cannot be implemented until approval is received from the CAA.</p>	<p>The change management procedure must state that when notified by the CAA that the change will be reviewed, implementation cannot commence until approval is received.</p>
<p>ANS.OR.B.010(a) The change management procedure should refer or link to a Change Register as required by AMC2 ATM/ANS.OR.B.010(a).</p>	<p>AMC2 ATM/ANS.OR.B.010(a) provides more information. The change management procedure should refer to a change register. (An Excel spreadsheet or Word document would be acceptable). The register should contain the following information</p> <ul style="list-style-type: none"> • Status of the change i.e. planned, under review, being implemented, implemented, cancelled. • A link to all documentation sent to the CAA regarding the change and the 1430 notification form • Selected for review by the CAA. Yes/No • The review decision of the CAA
<p>THE FOLLOWING REQUIREMENTS ARE FROM REGULATION 2015/340 AND ARE THEREFORE ONLY APPLICABLE TO AIR TRAFFIC CONTROL PROVIDERS</p>	
<p>A process for identifying if a training organisation change requires prior approval before implementation.</p>	<p>Your change management system should identify the relevant items from the list below which will require prior approval from the CAA before implementation</p> <ul style="list-style-type: none"> • Change in simulator platform. (i.e. a new simulator or any changes to the criteria defined in regulation 2015/340 AMC1 ATCO.OR.C.15(b)). • Changes to the Unit Training Plan and Unit Endorsement Courses. • Changes to the Unit Competency Scheme and refresher training.
<p>A process for notifying the CAA of training organisation changes that require prior approval.</p>	<p>The change management procedure must detail how changes in ATC training will be notified to the CAA</p>

Example flow chart for a change management procedure.



Management Systems:

Regulation 2017/373 makes it clear that the Management System is about the Quality of the service provided rather than the Safety.

All providers must have a Management System but ATS providers will, in addition, need a Safety Management System.

1035 lays down only 5 requirements for what should be in a Quality Management System.

373 only refers to a Management System and provides 13 requirements to be complied with plus 12 AMCs. Here is some comparison between the two and some additional information.

NOTE: AMC1 ATM/ANS.OR.B.005(a). Non-complex providers only. This AMC is shown as applying to all of paragraph (a) OR.B.005. However, it does not state that the other AMCs to OR.B.005 only apply to complex providers. Therefore, all apply! Non-complex providers should use this AMC as a basis for producing a management system that is proportionate to the service they provide, as stated in ATM/ANS.OR.B.005 (e) shown below.

	2017 373 ATM/ANS.OR.B.005 The items below must be documented within your management system	Comparison with 1035/2011	Relevant AMC
(a) 1	Clearly defined lines of responsibility and accountability throughout its organisation, including a direct accountability of the accountable manager	Annex I. 2.1 This should already exist	Further detailed information on Personnel Requirements is provided in the requirement ATM/ANS.OR.B.020 and its associated AMC and GM. AMC1 ATM/ANS.OR.B.005(a) Non-complex providers only. Paragraph (e). This is stating that for non-complex providers who may have low staffing levels, one individual is able to fill several roles i.e. accountable manager, safety manager, quality manager etc.

(a) 2	A description of the overall philosophies and principles of the service provider with regard to safety, quality, and security of its services, collectively constituting a policy, signed by the accountable manager;	<p>Annex I. 3.2 This should already exist in your policy document.</p> <p>.</p>	<p>AMC1 ATM/ANS.OR.B.005(a) (2) provides the whole content of a policy document for you. Ensure signed by accountable manager. AMC1 ATM/ANS.OR.B.005(a) Non-complex providers only paragraph (a) provides a briefer description of the policy content.</p>
(a) 3	The means to verify the performance of the service provider's organisation in light of the performance indicators and performance targets of the management system;	<p>NEWISH Having stated that the management system is about quality rather than safety the AMC to this section, (AMC2 ATM/ANS.OR.005 (a) (3)), is only applicable to ATS providers and is about safety! First it is necessary to document some safety objectives, for example:</p> <ul style="list-style-type: none"> • Number of Safety Audits achieved • Effectiveness of Safety Management • Runway incursions/excursions • Level busts • ANSP attributable airprox • TCAS events • Safety training <p>Now it is necessary to document processes for collecting information to verify how well the safety objectives are being met i.e. one or more of these:</p> <ul style="list-style-type: none"> • Safety reporting • Safety studies • Safety Reviews • Safety Audits • Safety Surveys 	<p>AMC2 ATM/ANS.OR.005 (a) (3) Applicable to ATS providers only and describes how to monitor progress against the safety objectives.</p>

(a) 3	<p>METEOROLOGICAL PROVIDERS ONLY.</p> <p>The items required to be documented within your management system should be included as applicable and proportionate to the meteorological service provided i.e. METAR, Local Report Only or Forecast.</p>	<p>Accurate, timely and complete aerodrome meteorological information is necessary to support safe and efficient air navigation and MET Service providers management systems should include an appropriate level of detail of the processes which are applicable to the provision and performance of meteorological services including those related to:</p> <ul style="list-style-type: none"> • Equipment (installation, operation and maintenance) • Personnel (training and ongoing competence) • Dissemination of information (Local Reporting or beyond the aerodrome as applicable) • Reliability and availability of information (timeliness and completeness requirements) • Record keeping • Contingency arrangements (equipment and personnel) • Consultation with users of the service <p>The management system should detail the proactive quality control procedures used to verify the performance of the MET service including:</p> <ul style="list-style-type: none"> • Identification and correction of errors (e.g. sample checking) • Internal audits or reviews of the MET service 	<p>AMC1 ATM/ANS.OR.B.005(a)(3)</p> <p>Management system</p> <p>MANAGEMENT OF METEOROLOGICAL SERVICES PERFORMANCE</p> <p>Assurance that meteorological information complies with requirements will be demonstrated by the detail of meteorological processes contained in the management system, the effectiveness of their implementation and the level of quality control measures carried out (as applicable and proportionate to the meteorological service provided i.e. METAR, Local Report Only or Forecast)</p>
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(a) 4	A process to identify changes within the service provider's organisation and the context in which it operates, which may affect established processes, procedures and services and, where necessary, change the management system and/or the functional system to accommodate those changes;	<p>NEW Business Plans, Management meetings. Management decisions, Safety Surveys, changes in organisational structure or type of service provision, Equipment Changes, changes caused by external factors.</p> <p>Accountable Manager to liaise with senior management when such changes are identified to ensure the impact of such changes are managed.</p>	<p>AMC1 ATM/ANS.OR.B.005(a) Non-complex providers only paragraph (d). This paragraph is unclear as it requires that risks associated with changes should be managed and that the management of changes should be documented process. As all service providers complex and non-complex are required to have a documented change management procedure these requirements can be met within that process and not within the management system.</p>
(a) 5	A process to review the management system, identify the causes of substandard performance of the management system, determine the implications of such substandard performance, and eliminate or mitigate such causes;	<p>Annex I. 3.2 Periodic review of the management system. Usually annually. Functioning of the system reviewed at management review meetings. usually twice a year.</p>	<p>AMC1 ATM/ANS.OR.B.005 (a) (5) requires Assessment of the Management system. Periodic management review with documented minutes and agenda should meet this requirement.</p>
(a) 6	A process to ensure that the personnel of the service provider are trained and competent to perform their duties in a safe, efficient, continuous and sustainable manner. In this context, the service provider shall establish policies for the recruitments and training of its personnel;	<p>Annex I. 5 HR recruitment policy. Training procedures. Maintenance of ATCO/FISO licences. UTP/UCS, engineer training, MET training, refresher training, competence assessments etc. Ensure records are maintained.</p>	<p>AMC1 ATM/ANS.OR.B.005 (a) (6) provides little more detail.</p>

(a) 7	A formal means for communication that ensures that all personnel of the service provider are fully aware of the management system that allows critical information to be conveyed and that makes it possible to explain why particular actions are taken and why procedures are introduced or changed.	NEW Publish minutes of management review meetings. Notify users of changes to procedures.	AMC1 ATM/ANS.OR.B.005 (a) (7) refers to communication responsibilities. No extra detail provided.
(b)	A service provider shall document all management system key processes, including a process for making personnel aware of their responsibilities, and the procedure for the amendment of those processes.	Annex I. 3.2 A management system document or integrated management system document. Organisational structure, responsibilities and accountabilities. Scope of services provided. A corrective/preventive action procedure to allow staff to suggest improvements to the system. A process for amending management system documents and assessing the impact of the change. Document control.	AMC1 ATM/ANS.OR.B.005 (b) requires a statement signed by the Accountable Manager to work in accordance with the applicable requirements. This should not be required as this statement is in the policy document which should be included within the management system. See 2 above. AMC1 ATM/ANS.OR.B.005(a) makes the statement that holding an ISO 9001 certificate should be enough to address the quality elements of the management system. However; even though the statement has been made that the management system is about quality of service, it contains more than would be expected in an ISO 9001 certified system!

(c)	A service provider shall establish a function to monitor compliance of its organisation with the applicable requirements and the adequacy of the procedures. Compliance monitoring shall include a feedback system of findings to the accountable manager to ensure effective implementation of corrective actions as necessary.	<p>Annex I. 3.2. An audit procedure describing the process for Internal audits. Audit results to the accountable manager and to be discussed at Management review meetings. The procedure to detail audit schedule and audit scope. A procedure to deal with audit non-conformities and corrective actions.</p>	<p>AMC1 ATM/ANS.OR.B.005(c) provides a wealth of information on what the scope of the audits should be, who is responsible, what should be looked at and the qualifications of auditors.</p> <p>AMC1 ATM/ANS.OR.B.005(a) Non-complex providers only paragraph (b) states that for non-complex the compliance monitoring can be carried out by the accountable manager.</p>
(d)	A service provider shall monitor the behaviour of its functional system and, where underperformance is identified, it shall establish its causes and eliminate them or, after having determined the implication of the underperformance, mitigate its effects.	<p>Annex II 3.1.3 (b) The management system should describe how equipment performance is monitored i.e. downtime, defect reports Feedback from service users, MORs. Don't forget that the 'functional' system also includes people, so the management system should also monitor staff training and competence.</p>	<p>AMC1 ATM/ANS.OR.B.005(d) describes what to do if it is discovered that the 'functional' system is underperforming. Rather than providing a means of compliance it is proposing that an underperformance of the functional system can be corrected by implementing a change or if the underperformance is due to a previously implemented change they way that change was implemented needs to be reviewed.</p>
(e)	The management system shall be proportionate to the size of the service provider and the complexity of its activities, taking into account the hazards and associated risks inherent in those activities.	<p>NEW Statement only. Not all organisations are as complex as NATS. Design your management system to be appropriate to the complexity of your organisation and the type of service you provide.</p>	

(f)	<p>Within its management system, the service provider shall establish formal interfaces with the relevant service providers and aviation undertakings in order to:</p> <p>(1) ensure that the aviation safety hazards entailed by its activities are identified and evaluated, and the associated risks are managed and mitigated as appropriate;</p> <p>(2) ensure that it provides its services in accordance with the requirements of this Regulation.</p>	<p>Annex I. 3.1. Annex II. 3.1.2 (e)</p> <p>Where another service provider or aviation undertaking provides a critical service ensure risk assessment and mitigation of potential loss of critical services. Include other services such as power supply and telephone services. Formal periodic meetings with other service providers.</p> <p>If you receive services from another certified provider, ensure that the providers certificate is current.</p> <p>If you receive services form a provider who is not certified, then it is your responsibility to oversee the provider to ensure that the services are provided IAW regulation 373.</p> <p>Consider Service Level agreements, Memorandum of Understanding, audit of the service provider. Methods of Communication.</p>	<p>AMC1 ATM/ANS.OR.B.005(a)</p> <p>Non-complex providers only paragraph (f) indicates that for non-complex organisations risk management can be performed by using hazard checklist or similar risk management tools. No further detail of this method is given. Suggest keep the same process for risk assessment and mitigation as exists under your 1035 certificate.</p> <p>The GM to 005(f) indicates that the ANSP should participate in the Local Runway Safety Team (LRST) established by the Aerodrome Operator.</p> <p>Further detailed information on Contracted Activities is provided in the requirement ATM/ANS.OR.B.015 and its associated AMC and GM.</p>
(g)	<p>In the case that the service provider holds also an aerodrome operator certificate, it shall ensure that the management system covers all activities in the scope of its certificates.</p>	<p>NEW</p> <p>This same requirement appears in the Aerodrome regulation 139/2014.</p>	

Additional requirements to be included within the management system that are not directly listed in ATM/ANS.OR.B.005			
	Document Control	Should already exist under 1035	AMC
	<p>The regulation oddly leaves out any direct requirement in the management system for document control.</p> <p>AMC1 ATM/ANS.OR.B.005(c) on Compliance Monitoring refers to Document Control as one of the items to be checked so assumedly there needs to be one.</p> <p>(It is also mentioned in the GM for Data Providers but nowhere else). Any ISO quality management system would have such a requirement in place.</p>	<p>Include a document control procedure within the management system, to manage and review all procedures and work instructions etc. Recommend a document register recording amendment status, review dates and locations of all documents. The document control process should also include the Operation Manuals referred to in ATM/ANS.OR.035.</p>	<p>ATM/ANS.OR.035 Operations Manuals.</p> <p>This OR requires that the operational manuals kept up to date, are assessable to all who need them, and relevant staff are informed of any amendments.</p> <p>This should be included within the Document Control process.</p>
	ATM/ANS.OR.B.030 Record-keeping	Should already exist under 1035	
(a)	<p>A service provider shall establish a system of record-keeping that allows adequate storage of the records and reliable traceability of all its activities, covering in particular all the elements indicated in point ATM/ANS.OR.B.005.</p>	<p>Again, not listed as part of the management system under ATM/ANS.OR.B.005 but does cross reference back to it.</p> <p>Include within the management system a procedure for management of records that meets the requirements of the OR and its associated AMC</p>	<p>More detail on record keeping provided in AMC1 and AMC2 ATM/ANS.OR.B.030 covering retention periods, types of records, (electronic, paper), backup of computer systems and accessibility.</p>
(b)	<p>The format and the retention period of the records referred to in point (a) shall be specified in the service provider's management system procedures.</p>		
(c)	<p>Records shall be stored in a manner that ensures protection against damage, alteration and theft.</p>		

Safety Management System

Regulation 2017/373 requires all ATS providers to have a Safety Management System.

The requirements for this system are described in Annex IV- Part ATS

There is no major change here from that required by 1035/2011 Annex II and in some respects is a little clearer.

The AMC in this section of the regulation is divided between Complex and non-complex providers. As this guidance is aimed at the smaller ATS providers the grid below will only concentrate on those non-complex areas.

<p>ATS.OR.220 starts with the following statement, An air traffic services provider shall have in place a safety management system (SMS), which may be an integral part of the management system required in point ATM/ANS.OR.B.005, that includes the following components. This is implying that your SMS can either be a stand-alone document or combined with the Management System.</p>			
	2017 373 ATS.OR.200 The items below must be documented within your safety management system	Comparison with 1035/2011	Relevant AMC
1	Safety policy and objectives	Annex II. 3.1.1 This should already exist	
1 (i)	Management commitment and responsibility regarding safety which shall be included in the safety policy.	Annex II. 3.1.1 If combining the SMS with the management system a single policy covering the requirements of both would be acceptable.	AMC1 ATS.OR.200(1); (2); (3) (a) The safety policy should include a commitment to improve towards the highest safety standards, comply with all the applicable legal requirements, meet all the applicable standards, consider the best practices and provide the appropriate resources.

1 (ii)	Safety accountabilities regarding the implementation and maintenance of the SMS and the authority to make decisions regarding safety.	Annex II. 3.1.1 If combining the SMS with the management system add these to the responsibilities and accountabilities described there.	AMC1 ATS.OR.200(1); (2); (3) (e) An air traffic services provider should identify persons who fulfil the role of safety managers and who are responsible for coordinating the safety management system (SMS). These persons may be accountable managers or individuals with an operational role in the air traffic services provider. AMC1 ATS.OR.200(1)(ii);(iii) provides further information on Accountabilities and Responsibilities.
1 (iii)	Appointment of a safety manager who is responsible for the implementation and maintenance of an effective SMS.	Annex II. 3.1.2 As Above.	As Above.
1 (iv)	Coordination of an emergency response planning with other service providers and aviation undertakings that interface with the ATS provider during the provision of its services.	This is a NEW requirement. 1035 Annex I 8.2 referred to Contingency Plans and was not part of the SMS. AMC1 ATS.OR.200(1) (iv) for complex providers gives some further detail on this and may assist in developing an ERP if one does not already exist. The ERP should align with the Aerodrome Operators ERP.	AMC1 ATS.OR.200(1); (2); (3) (b) In cooperation with other stakeholders, the air traffic services provider should develop, coordinate and maintain an emergency response plan (ERP) that ensures orderly and safe transition from normal to emergency operations and return to normal operations. The ERP should determine the actions to be taken by the air traffic services provider or specified individuals in an emergency and reflect the size, nature and complexity of the activities performed by the air traffic services provider.
1 (v)	SMS documentation that describes all the elements of the SMS, the associated SMS processes and the SMS outputs.	Statement.	
2	Safety risk management		

2 (i)	A process to identify hazards associated to its services which shall be based on a combination of reactive, proactive and predictive methods of safety data collection.	Annex II. 3.1.2 This is about hazard identification of normal operations not changes. Recommend the use of a hazard log showing the potential hazard, the risk levels and any mitigation.	AMC1 ATS.OR.200(1); (2); (3) (c) Safety risk management may be performed using hazard checklists or similar risk management tools or processes, which are integrated into the activities of the air traffic services provider.
2 (ii)	process that ensures analysis, assessment and control of the safety risks associated with identified hazards	As above	As above
2 (iii)	A process to ensure that its contribution to the risk of aircraft accidents is minimised as far as is reasonably practicable.	As above	As above
3	Safety assurance		
3 (i)	Safety performance monitoring and measurement means to verify the safety performance of the organisation and validate the effectiveness of the safety risk controls.	Annex II. 3.1.2 The regulation gives no further AMC or guidance on this for non-complex providers, but this is effectively covered by the Management System a (3) (<i>The means to verify the performance of the service provider's organisation in light of the performance indicators and performance targets of the management system</i>).	
3 (ii)	A process to identify changes which may affect the level of safety risk associated with its service and to identify and manage the safety risks that may arise from those changes.	Annex II. 3.2 Covered in the change management procedure. Link to this from the SMS.	AMC1 ATS.OR.200(1); (2); (3) (d) An air traffic services provider should manage safety risks related to changes. Management of changes should be a documented process to identify external and internal changes that may have an adverse effect on safety. It should make use of the air traffic services provider's existing hazard identification, risk assessment and mitigation processes.

3 (iii)	A process to monitor and assess the effectiveness of the SMS to enable the continuous improvement of the overall performance of the SMS.	The regulation gives no further AMC or guidance on this for non-complex providers. Suggest safety surveys looking at the scope of the SMS. Have all hazards been identified. Is there any indication that the SMS does not cover all operations? Staff awareness and training. Staff feedback. Is the SMS being correctly applied. Review of reported incidents. Use the SMS Evaluation Tool available on the CAA web site.	
Safety promotion			
	Training programme that ensures that the personnel are trained and competent to perform their SMS duties.	Annex II 3.1.4 Staff Safety training appropriate to their responsibilities. Maintain records of staff training.	
	Safety communication that ensures that the personnel are aware of the SMS implementation.	Safety notices. Read me files, Safety meeting.	

Section 4 New Terminology.

Safety Criteria

Safety Criteria appears multiple times throughout the regulation but curiously is not defined in Annex I part-Definitions!

It was not referred to in regulation 1035/2011.

For ATS providers Safety Criteria appears in Annex IV under ATS OR.205 dealing with Safety Assessments of changes and ATS.OR.210 Safety criteria.

GM3 ATS.OR.205(b)(5) Safety assessment and assurance of changes to the functional system states:

(b) If the safety criteria have been established in terms of the likelihood of the hazards and the severity of their effects, then the risk evaluation takes the form of verifying that the assessed risks satisfy the safety criteria in terms of risks;

Therefore, small providers this presents little or no change.

You will have within your existing SMS a risk matrix, likelihood verses severity like the one below, which has been taken from ICAO Doc 9859.

Having completed the risk assessment in terms of likelihood (probability) verses severity, the matrix will provide a resulting colour. Red, Yellow or Green or in some cases numerical values. Whatever system you use the resulting risk is the Safety Criteria.

Risk Probability		Risk severity				
		Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
Frequent	5	5A	5B	5C	5D	5E
Occasional	4	4A	4A	4C	4D	4E
Remote	3	3A	3B	3C	3D	3E
Improbable	2	2A	2B	2C	2D	2E
Extremely Improbable	1	1A	1B	1C	1D	1E

Don't forget that there may be multiple Safety Criteria associated with a change, when taken collectively, ensure that the change does not create an unacceptable risk to the safety of the service.

Safety Acceptability

ATS.OR.210 Safety criteria states

(a) An air traffic services provider shall determine the **safety acceptability** of a change to a functional system, based on the analysis of the risks posed by the introduction of the change.

This is simply meaning that you need to document what level of Safety Criteria (Risk) your organisation will tolerate. See table below as an example.

Safety Criteria	Safety acceptability
3A to 5A	Intolerable Region Unacceptable under the existing circumstances
2A to 5E	Tolerable Region Acceptable based on risk mitigation. It may require management decision.
1A to 3E	Acceptable Region Acceptable

Absolute and Relative Risk

AMC1 ATS.OR.205(b)(2) Safety assessment and assurance of changes to the functional system refers to the concept of absolute and relative risk under the heading of 'DETERMINATION OF THE SAFETY CRITERIA FOR THE CHANGE'.

Absolute Risk is the likelihood of an event occurring under certain conditions (The risk of something is the odds of it taking place. The absolute risk of something happening is the odds of that happening over a stated time period).

Relative Risk is the likelihood of an event occurring under certain conditions compared with another event occurring under similar conditions i.e. the percentage increase or decrease of risk against a baseline.

I.e. you could demonstrate in your safety assessment that the safety risk after the change has been reduced relative to the safety risk before the change

In general, most smaller service provider would produce an absolute safety risk (safety criteria) for a change using the probability/severity grid.

Proxies

This is a new way of justifying that a change you intend to implement is safe.

Traditionally this has been done by the process of hazard identification and risk assessment before and after mitigation evidenced and justified in a safety case.

The dictionary definition of a Proxy is:

A situation, process, or activity to which another situation, etc. is compared, especially in order to calculate how successful or unsuccessful it is:

Or in other words, something that you measure instead of the thing that you really want to measure, because it is easier to measure than the first thing and you know the relationship between the two things.

e.g. you might check the weight of a pack of 100 bolts, to ensure that the pack has 100 bolts in it, rather than count the bolts.

The regulation guidance material states:

In the safety assessment of functional systems, it may not always be possible or desirable to specify safety criteria in terms of quantitative values of risk. Instead, safety criteria may be defined in terms of other measures that are related to risk. These measures are called proxies.

For a proxy to be used to determine the safety criteria (safety risk) when implementing a change, the ANSP must demonstrate the following to the satisfaction of the CAA:

- A justifiable causal relationship exists between the proxy and the harmful effect, e.g. proxy increase/decrease causes risk increase/decrease;
- A proxy is sufficiently isolated from other proxies to be treated independently; and
- The proxy is measurable, quantitatively or qualitatively, to an adequate degree of certainty.

It should be noted that Proxies are not mentioned in the regulation and only appear in the Guidance Material and as options in the AMC and therefore are not mandatory to use.

This is a new concept and for non-complex service providers, properly excessively complex for the type of changes likely to be implemented, however; the option to use them remains available.