

Compliance List LVO

Note: This compliance list is based on Regulation (EU) No. 965/2012 ("Air Operations")

Operator's name and address:		Operator's AOC number:	
		Aircraft Type and Model for which approval is requested:	
		Aircraft Registration(s) <i>(only applicable unless the entire fleet is affected)</i> :	
Revision number(s): <i>(applicable only for those parts affected by the relevant SPA area)</i> OM-A: OM-B: MEL: OM-C: OM-D: Other:		Revision date(s): <i>(applicable only for those parts affected by the relevant SPA area)</i> OM-A: OM-B: MEL: OM-C: OM-D: Other:	
List created by <i>(competent person assigned by the operator)</i> :	Date:	List checked by <i>(person checking the list on behalf of the compliance management system of the operator)</i> :	Date:
Accountable Manager (name/signature):		Nominated Person for managing and supervising flight operations (name/signature):	
<i>(For Authority use only)</i> Austro Control POI:		<i>(For Authority use only)</i> Remarks:	<i>(For Authority use only)</i>

Content of the compliance list:

A compliance list is a tool designed for the preparation and approval of each area requiring specific approval (SPA). This form has to be filled in for each aircraft type concerned.

Each line contains predefined references to one or more paragraph(s) of the applicable regulation (or AMC material). The user shall insert the reference to the relevant part of the Operations Manual.

This list can be edited by the operator in writing or electronically (preferred). When finished, the operator shall send the completed version to Austro Control by email for further processing.

Note: As the revision number(s) and date(s) of the affected part(s) of the OM is/are to be stated on the front page of this compliance list, no additional OM-compliance list has to be completed.

Respective legal reference column:

This column lists the relevant legal paragraph.

Requirement column:

This column provides the user with the implementing rule for each required section. Whenever the remark "refer to rule" is mentioned the user has to consult the Air Operations regulation. (This procedure is necessary when the respective rule is too extensive for publication in this compliance list.)

Manual reference column:

All references in regard to the respective Air Operations paragraph(s) shall be listed in this column.

If an Air Operations paragraph is not relevant, the remark N/A shall be inserted in the relevant reference field. Therefore, all lines must have a remark either stating the OM reference or N/A, as applicable.

Remarks column:

This column is for Authority use only. The operator may put remarks directly into the **Manual reference** column.

Doc Stat column (Austro Control use only):

- ✓ Operator's OM is in compliance with the relevant paragraph(s)
- N** Operator's OM is **not** in compliance with the relevant paragraph(s)
- N/A** Not applicable for the relevant Operator / Operation

Note: This compliance list is a tool and does not replace a thorough study of official regulations.

Please help us to continuously improve the quality of this list. If you detect any error or deficiency mail to ops@austrocontrol.at.

Continue with checklist on next page.

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Operations	Low Visibility Operations				
SPA.LVO.100(a)	The operator shall only conduct low visibility take-off (LVTO) operation when approved by the competent authority.		AP		
SPA.LVO.100(b)	The operator shall only conduct lower than standard category I (LTS CAT I) operation when approved by the competent authority.		AP		
SPA.LVO.100(c)	The operator shall only conduct standard category II (CAT II) operation when approved by the competent authority.		AP		
SPA.LVO.100(d)	The operator shall only conduct other than standard category II (OTS CAT II) operation when approved by the competent authority.		AP		
SPA.LVO.100(e)	The operator shall only conduct standard category III (CAT III) operation when approved by the competent authority.		AP		
SPA.LVO.100(f)	The operator shall only conduct approach operation utilising enhanced vision systems (EVS) for which an operational credit is applied to reduce the runway visual range (RVR) minima by no more than one third of the published RVR when approved by the competent authority.		AP		

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LVTO (A)	LVTO Operations - Aeroplanes				
AMC1 SPA.LVO.100(a)	For a low visibility take-off (LVTO) with an aeroplane the following provision should apply: for an LVTO with a runway visual range (RVR) below 400 m the criteria specified in Table 1.A of AMC1 SPA.LVO.100		AP		
AMC1 SPA.LVO.100(b)	For a low visibility take-off (LVTO) with an aeroplane the following provision should apply: for an LVTO with an RVR below 150 m but not less than 125 m: (1) high intensity runway centre line lights spaced 15 m or less apart and high intensity edge lights spaced 60 m or less apart that are in operation; (2) a 90 m visual segment that is available from the flight crew compartment at the start of the take-off run; and (3) the required RVR value is achieved for all of the relevant RVR reporting points.		AP		
AMC1 SPA.LVO.100(c)	For a low visibility take-off (LVTO) with an aeroplane the following provision should apply: for an LVTO with an RVR below 125 m but not less than 75 m: (1) runway protection and facilities equivalent to CAT III landing operations are available; and (2) the aircraft is equipped with an approved lateral guidance system.		AP		

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LVTO (H)	LVTO Operations - Helicopters				
AMC2 SPA.LVO.100	For LVTOs with helicopters the provisions specified in Table 1.H should apply.		AP		

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LTS CAT I Low Visibility Operations LTS CAT I					
AMC3 SPA.LVO.100(a)(1)	For lower than Standard Category I (LTS CAT I) operations the following provisions should apply: The decision height (DH) of an LTS CAT I operation should not be lower than the highest of: (i) the minimum DH specified in the AFM, if stated; (ii) the minimum height to which the precision approach aid can be used without the specified visual reference; (iii) the applicable obstacle clearance height (OCH) for the category of aeroplane; (iv) the DH to which the flight crew is qualified to operate; or (v) 200 ft.		AP		
AMC3 SPA.LVO.100(a)(2)	For lower than Standard Category I (LTS CAT I) operations the following provisions should apply: An instrument landing system / microwave landing system (ILS/MLS) that supports an LTS CAT I operation should be an unrestricted facility with a straight-in course, = 3° offset, and the ILS should be certified to: (i) class I/T/1 for operations to a minimum of 450 m RVR; or (ii) class II/D/2 for operations to less than 450 m RVR. Single ILS facilities are only acceptable if level 2 performance is provided.		AP		
AMC3 SPA.LVO.100(a)(3)	For lower than Standard Category I (LTS CAT I) operations the following provisions should apply: The following visual aids should be available: (i) standard runway day markings, approach lights, runway edge lights, threshold lights and runway end lights; (ii) for operations with an RVR below 450 m, additionally touch-down zone and/or runway centre line lights.		AP		
AMC3 SPA.LVO.100(a)(4)	For lower than Standard Category I (LTS CAT I) operations the following provisions should apply: The lowest RVR / converted meteorological visibility (CMV) minima to be used are specified in Table 2. See AMC3 SPA.LVO.100 Table 2!		AP		

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CAT II and OTS CAT II	Low Visibility Operations CAT II and OTS CAT II				
AMC4 SPA.LVO.100(a)(1)	For CAT II and other than Standard Category II (OTS CAT II) operations the following provision should apply: The ILS / MLS that supports OTS CAT II operation should be an unrestricted facility with a straight in course (= 3° offset) and the ILS should be certified to class II/D/2. Single ILS facilities are only acceptable if level 2 performance is provided.		AP		
AMC4 SPA.LVO.100(a)(2)	For CAT II and other than Standard Category II (OTS CAT II) operations the following provision should apply: The DH for CAT II and OTS CAT II operation should not be lower than the highest of: (i) the minimum DH specified in the AFM, if stated; (ii) the minimum height to which the precision approach aid can be used without the specified visual reference; (iii) the applicable OCH for the category of aeroplane; (iv) the DH to which the flight crew is qualified to operate; or (v) 100 ft.		AP		
AMC4 SPA.LVO.100(a)(3)	For CAT II and other than Standard Category II (OTS CAT II) operations the following provision should apply: The following visual aids should be available: (i) standard runway day markings and approach and the following runway lights: runway edge lights, threshold lights and runway end lights; (ii) for operations in RVR below 450 m, additionally touch-down zone and/or runway centre line lights; (iii) for operations with an RVR of 400 m or less, additionally centre line lights.		AP		
AMC4 SPA.LVO.100(a)(4)	For CAT II and other than Standard Category II (OTS CAT II) operations the following provision should apply: The lowest RVR minima to be used are specified: (i) for CAT II operations in Table 3; and (ii) for OTS CAT II operations in Table 4.		AP		
AMC4 SPA.LVO.100(b)	For OTS CAT II operations, the terrain ahead of the runway threshold should have been surveyed.				

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CAT III Low Visibility Operations CAT III					
AMC5 SPA.LVO.100(a)	The following provision should apply to CAT III operations: Where the DH and RVR do not fall within the same category, the RVR should determine in which category the operation is to be considered.		AP		
AMC5 SPA.LVO.100(b)	The following provision should apply to CAT III operations: For operations in which a DH is used, the DH should not be lower than: (1) the minimum DH specified in the AFM, if stated; (2) the minimum height to which the precision approach aid can be used without the specified visual reference; or (3) the DH to which the flight crew is qualified to operate.		AP		
AMC5 SPA.LVO.100 (c)	The following provision should apply to CAT III operations: Operations with no DH should only be conducted if: (1) the operation with no DH is specified in the AFM; (2) the approach aid and the aerodrome facilities can support operations with no DH; and (3) the flight crew is qualified to operate with no DH.		AP		
AMC5 SPA.LVO.100(d)	The following provision should apply to CAT III operations: The lowest RVR minima to be used are specified in Table 5.		AP		

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EVS Low Visibility Operations utilizing EVS					
AMC6 SPA.LVO.100(a)	The pilot using a certified enhanced vision system (EVS) in accordance with the procedures and limitations of the AFM may reduce the RVR/CMV value in column 1 to the value in column 2 of Table 6 for CAT I operations, APV operations and NPA operations flown with the CDFA technique.		AP		
AMC6 SPA.LVO.100(b)	For CAT I operations: The pilot using a certified enhanced vision system (EVS) in accordance with the procedures and limitations of the AFM (1) may continue an approach below DH to 100 ft above the runway threshold elevation provided that a visual reference is displayed and identifiable on the EVS image; and (2) should only continue an approach below 100 ft above the runway threshold elevation provided that a visual reference is distinctly visible and identifiable to the pilot without reliance on the EVS.		AP		
AMC6 SPA.LVO.100 (c)	For APV operations and NPA operations flown with the CDFA technique: The pilot using a certified enhanced vision system (EVS) in accordance with the procedures and limitations of the AFM (1) may continue an approach below DH/MDH to 200 ft above the runway threshold elevation provided that a visual reference is displayed and identifiable on the EVS image; and (2) should only continue an approach below 200 ft above the runway threshold elevation provided that a visual reference is distinctly visible and identifiable to the pilot without reliance on the EVS.		AP		

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Effect on LDG MNM	Effect on Landing Minima of temporarily failed or downgraded Equipment				
AMC7 SPA.LVO.100(a)	These instructions are intended for use both pre-flight and in-flight. It is however not expected that the pilot-in-command/commander would consult such instructions after passing 1 000 ft above the aerodrome. If failures of ground aids are announced at such a late stage, the approach could be continued at the pilot-in-command/commander's discretion. If failures are announced before such a late stage in the approach, their effect on the approach should be considered as described in Table 7, and the approach may have to be abandoned.		AP		
AMC7 SPA.LVO.100(b)	The following conditions should be applicable to the Table 7: (1) multiple failures of runway/FATO lights other than indicated in Table 7 are not acceptable; (2) deficiencies of approach and runway/FATO lights are treated separately; (3) for CAT II and CAT III operations, a combination of deficiencies in runway/FATO lights and RVR assessment equipment are not permitted; and (4) failures other than ILS and MLS affect RVR only and not DH.		AP		

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ILS classification	For information				
GM2 SPA.LVO.100	The ILS classification system is specified in ICAO Annex 10.				

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MNM for CAT II and CAT III General	Establishment of Minimum for CAT II and CAT III Operations				
GM1 SPA.LVO.100(c),(e)/(a)(1)	When establishing minimum RVR for CAT II and CAT III operations, operators should pay attention to the following information that originates in ECAC Doc 17 3rd Edition, Subpart A. It is retained as background information and, to some extent, for historical purposes although there may be some conflict with current practices.		AP		
GM1 SPA.LVO.100(c),(e)/(a)(2)	Since the inception of precision approach and landing operations various methods have been devised for the calculation of aerodrome operating minima in terms of DH and RVR. It is a comparatively straightforward matter to establish the DH for an operation but establishing the minimum RVR to be associated with that DH so as to provide a high probability that the required visual reference will be available at that DH has been more of a problem.		AP		
GM1 SPA.LVO.100(c),(e)/(a)(3)(i)	The methods adopted by various States to resolve the DH/RVR relationship in respect of CAT II and CAT III operations have varied considerably. In one instance there has been a simple approach that entailed the application of empirical data based on actual operating experience in a particular environment. This has given satisfactory results for application within the environment for which it was developed. In another instance a more sophisticated method was employed which utilised a fairly complex computer programme to take account of a wide range of variables. However, in the latter case, it has been found that with the improvement in the performance of visual aids, and the increased use of automatic equipment in the many different types of new aircraft, most of the variables cancel each other out and a simple tabulation can be constructed that is applicable to a wide range of aircraft. The basic principles that are observed in establishing the values in such a table are that the scale of visual reference required by a pilot at and below DH depends on the task that he/she has to carry out, and that the degree to which his/her vision is obscured depends on the obscuring medium, the general rule in fog being that it becomes more dense with increase in height. Research using flight simulation training devices (FSTDs) coupled with flight trials has shown most pilots require visual contact to be established about 3 seconds above DH though it has been observed that this reduces to about 1 second when a fail-operational automatic landing system is being used.		AP		

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GM1 SPA.LVO.100(c),(e)/(a)(3)(ii)	The methods adopted by various States to resolve the DH/RVR relationship in respect of CAT II and CAT III operations have varied considerably. In one instance there has been a simple approach that entailed the application of empirical data based on actual operating experience in a particular environment. This has given satisfactory results for application within the environment for which it was developed. In another instance a more sophisticated method was employed which utilised a fairly complex computer programme to take account of a wide range of variables. However, in the latter case, it has been found that with the improvement in the performance of visual aids, and the increased use of automatic equipment in the many different types of new aircraft, most of the variables cancel each other out and a simple tabulation can be constructed that is applicable to a wide range of aircraft. The basic principles that are observed in establishing the values in such a table are that the scale of visual reference required by a pilot at and below DH depends on the task that he/she has to carry out, and that the degree to which his/her vision is obscured depends on the obscuring medium, the general rule in fog being that it becomes more dense with increase in height. Research using flight simulation training devices (FSTDs) coupled with flight trials has shown to establish lateral position and cross-track velocity most pilots need to see not less than a three light segment of the centre line of the approach lights, or runway centre line, or runway edge lights.		AP		
GM1 SPA.LVO.100(c),(e)/(a)(3)(iii)	The methods adopted by various States to resolve the DH/RVR relationship in respect of CAT II and CAT III operations have varied considerably. In one instance there has been a simple approach that entailed the application of empirical data based on actual operating experience in a particular environment. This has given satisfactory results for application within the environment for which it was developed. In another instance a more sophisticated method was employed which utilised a fairly complex computer programme to take account of a wide range of variables. However, in the latter case, it has been found that with the improvement in the performance of visual aids, and the increased use of automatic equipment in the many different types of new aircraft, most of the variables cancel each other out and a simple tabulation can be constructed that is applicable to a wide range of aircraft. The basic principles that are observed in establishing the values in such a table are that the scale of visual reference required by a pilot at and below DH depends on the task that he/she has to carry out, and that the degree to which his/her vision is obscured depends on the		AP		

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	obscuring medium, the general rule in fog being that it becomes more dense with increase in height. Research using flight simulation training devices (FSTDs) coupled with flight trials has shown for roll guidance most pilots need to see a lateral element of the ground pattern, i.e. an approach light cross bar, the landing threshold, or a barrette of the touchdown zone light.				
GM1 SPA.LVO.100(c),(e)/(a)(3)(iv)	The methods adopted by various States to resolve the DH/RVR relationship in respect of CAT II and CAT III operations have varied considerably. In one instance there has been a simple approach that entailed the application of empirical data based on actual operating experience in a particular environment. This has given satisfactory results for application within the environment for which it was developed. In another instance a more sophisticated method was employed which utilised a fairly complex computer programme to take account of a wide range of variables. However, in the latter case, it has been found that with the improvement in the performance of visual aids, and the increased use of automatic equipment in the many different types of new aircraft, most of the variables cancel each other out and a simple tabulation can be constructed that is applicable to a wide range of aircraft. The basic principles that are observed in establishing the values in such a table are that the scale of visual reference required by a pilot at and below DH depends on the task that he/she has to carry out, and that the degree to which his/her vision is obscured depends on the obscuring medium, the general rule in fog being that it becomes more dense with increase in height. Research using flight simulation training devices (FSTDs) coupled with flight trials has shown to make an accurate adjustment to the flight path in the vertical plane, such as a flare, using purely visual cues, most pilots need to see a point on the ground which has a low or zero rate of apparent movement relative to the aircraft.		AP		
GM1 SPA.LVO.100(c),(e)/(a)(3)(v)	The methods adopted by various States to resolve the DH/RVR relationship in respect of CAT II and CAT III operations have varied considerably. In one instance there has been a simple approach that entailed the application of empirical data based on actual operating experience in a particular environment. This has given satisfactory results for application within the environment for which it was developed. In another instance a more sophisticated method was employed which utilised a fairly complex computer programme to take account of a wide range of variables. However, in the latter case, it has been found that with the improvement in the performance of visual aids, and the increased use of automatic equipment in the many different types of new aircraft, most of the		AP		

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	<p>variables cancel each other out and a simple tabulation can be constructed that is applicable to a wide range of aircraft. The basic principles that are observed in establishing the values in such a table are that the scale of visual reference required by a pilot at and below DH depends on the task that he/she has to carry out, and that the degree to which his/her vision is obscured depends on the obscuring medium, the general rule in fog being that it becomes more dense with increase in height. Research using flight simulation training devices (FSTDs) coupled with flight trials has shown, with regard to fog structure, data gathered in the United Kingdom over a 20 year period have shown that in deep stable fog there is a 90 % probability that the slant visual range from eye heights higher than 15 ft above the ground will be less than the horizontal visibility at ground level, i.e. RVR. There are at present no data available to show what the relationship is between the slant visual range and RVR in other low visibility conditions such as blowing snow, dust or heavy rain, but there is some evidence in pilot reports that the lack of contrast between visual aids and the background in such conditions can produce a relationship similar to that observed in fog.</p>				

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CAT II Operations Establishment of Minimum for CAT II and CAT III Operations					
GM1 SPA.LVO.100(c),(e)/(b)(1)	The selection of the dimensions of the required visual segments that are used for CAT II operations is based on a visual segment of not less than 90 m will need to be in view at and below DH for pilot to be able to monitor an automatic system. Before using a CAT II ILS for landing, the quality of the localiser between 50 ft and touchdown should be verified.		AP		
GM1 SPA.LVO.100(c),(e)/(b)(2)	The selection of the dimensions of the required visual segments that are used for CAT II operations is based on a visual segment of not less than 120 m will need to be in view for a pilot to be able to maintain the roll attitude manually at and below DH. Before using a CAT II ILS for landing, the quality of the localiser between 50 ft and touchdown should be verified.		AP		
GM1 SPA.LVO.100(c),(e)/(b)(3)	The selection of the dimensions of the required visual segments that are used for CAT II operations is based on for a manual landing using only external visual cues, a visual segment of 225 m will be required at the height at which flare initiation starts in order to provide the pilot with sight of a point of low relative movement on the ground. Before using a CAT II ILS for landing, the quality of the localiser between 50 ft and touchdown should be verified.		AP		

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CAT III Fail-Passive Operations	Establishment of Minimum for CAT II and CAT III Operations				
GM1 SPA.LVO.100(c),(e)/(c)(1)	CAT III operations utilising fail-passive automatic landing equipment were introduced in the late 1960s and it is desirable that the principles governing the establishment of the minimum RVR for such operations be dealt with in some detail.		AP		
GM1 SPA.LVO.100(c),(e)/(c)(2)	During an automatic landing the pilot needs to monitor the performance of the aircraft system, not in order to detect a failure that is better done by the monitoring devices built into the system, but so as to know precisely the flight situation. In the final stages the pilot should establish visual contact and, by the time the pilot reaches DH, the pilot should have checked the aircraft position relative to the approach or runway centre line lights. For this the pilot will need sight of horizontal elements (for roll reference) and part of the touchdown area. The pilot should check for lateral position and cross-track velocity and, if not within the pre-stated lateral limits, the pilot should carry out a missed approach procedure. The pilot should also check longitudinal progress and sight of the landing threshold is useful for this purpose, as is sight of the touchdown zone lights.		AP		
GM1 SPA.LVO.100(c),(e)/(c)(3)(i)	In the event of a failure of the automatic flight guidance system below DH, there are two possible courses of action; the first is a procedure that allows the pilot to complete the landing manually if there is adequate visual reference for him/her to do so, or to initiate a missed approach procedure if there is not; the second is to make a missed approach procedure mandatory if there is a system disconnect regardless of the pilot's assessment of the visual reference available: If the first option is selected then the overriding rule in the determination of a minimum RVR is for sufficient visual cues to be available at and below DH for the pilot to be able to carry out a manual landing. Data presented in ECAC Doc 17 showed that a minimum value of 300 m would give a high probability that the cues needed by the pilot to assess the aircraft in pitch and roll will be available and this should be the minimum RVR for this procedure.		AP		
GM1 SPA.LVO.100(c),(e)/(c)(3)(ii)	In the event of a failure of the automatic flight guidance system below DH, there are two possible courses of action; the first is a procedure that allows the pilot to complete the landing manually if there is adequate visual reference for him/her to do so, or to initiate a missed approach procedure if there is not; the second is to make a missed approach procedure mandatory if there is a system		AP		

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	disconnect regardless of the pilot's assessment of the visual reference available: The second option, to require a missed approach procedure to be carried out should the automatic flight-guidance system fail below DH, will permit a lower minimum RVR because the visual reference provision will be less if there is no need to provide for the possibility of a manual landing. However, this option is only acceptable if it can be shown that the probability of a system failure below DH is acceptably low. It should be recognised that the inclination of a pilot who experiences such a failure would be to continue the landing manually but the results of flight trials in actual conditions and of simulator experiments show that pilots do not always recognise that the visual cues are inadequate in such situations and present recorded data reveal that pilots' landing performance reduces progressively as the RVR is reduced below 300 m. It should further be recognised that there is some risk in carrying out a manual missed approach procedure from below 50 ft in very low visibility and it should therefore be accepted that if an RVR lower than 300 m is to be approved, the flight deck procedure should not normally allow the pilot to continue the landing manually in such conditions and the aircraft system should be sufficiently reliable for the missed approach procedure rate to be low.				
GM1 SPA.LVO.100(c),(e)/(c) (4)	These criteria may be relaxed in the case of an aircraft with a fail-passive automatic landing system that is supplemented by a head-up display that does not qualify as a fail-operational system but that gives guidance that will enable the pilot to complete a landing in the event of a failure of the automatic landing system. In this case it is not necessary to make a missed approach procedure mandatory in the event of a failure of the automatic landing system when the RVR is less than 300 m.		AP		

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CAT III Fail-Operational with DH	Establishment of Minimum for CAT II and CAT III Operations				
GM1 SPA.LVO.100(c),(e)/(d)(1)	For CAT III operations utilising a fail-operational landing system with a DH, a pilot should be able to see at least one centre line light.		AP		
GM1 SPA.LVO.100(c),(e)/(d)(2)	For CAT III operations utilising a fail-operational hybrid landing system with a DH, a pilot should have a visual reference containing a segment of at least three consecutive lights of the runway centre line lights.		AP		

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CAT III Fail-Operational with no DH	Establishment of Minimum for CAT II and CAT III Operations				
GM1 SPA.LVO.100(c),(e)/(e)(1)	For CAT III operations with no DH the pilot is not required to see the runway prior to touchdown. The permitted RVR is dependent on the level of aircraft equipment.		AP		
GM1 SPA.LVO.100(c),(e)/(e)(2)	A CAT III runway may be assumed to support operations with no DH unless specifically restricted as published in the AIP or NOTAM.		AP		

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Crew Actions	Crew Actions in Case of Autopilot Failure at or below DH in Fail-Passive CAT III Operations				
GM1 SPA.LVO.100(e)	For operations to actual RVR values less than 300 m, a missed approach procedure is assumed in the event of an autopilot failure at or below DH. This means that a missed approach procedure is the normal action. However, the wording recognises that there may be circumstances where the safest action is to continue the landing. Such circumstances include the height at which the failure occurs, the actual visual references, and other malfunctions. This would typically apply to the late stages of the flare. In conclusion, it is not forbidden to continue the approach and complete the landing when the pilot-in-command/commander determines that this is the safest course of action. The operator's policy and the operational instructions should reflect this information.		AP		

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EVS Operations	Operations utilizing EVS				
GM1 SPA.LVO.100(f)/(a)(1)	Enhanced vision systems use sensing technology to improve a pilot's ability to detect objects, such as runway lights or terrain, which may otherwise not be visible. The image produced from the sensor and/or image processor can be displayed to the pilot in a number of ways including use of a HUD. The systems can be used in all phases of flight and can improve situational awareness. In particular, infra-red systems can display terrain during operations at night, improve situational awareness during night and low-visibility taxiing, and may allow earlier acquisition of visual references during instrument approaches.		AP		
GM1 SPA.LVO.100(f)/(b)(1)	The provisions for EVS were developed after an operational evaluation of two different EVS systems, along with data and support provided by the FAA. Approaches using EVS were flown in a variety of conditions including fog, rain and snow showers, as well as at night to aerodromes located in mountainous terrain. The infra-red EVS performance can vary depending on the weather conditions encountered. Therefore, the provisions take a conservative approach to cater for the wide variety of conditions which may be encountered. It may be necessary to amend the provisions in the future to take account of greater operational experience.		AP		
GM1 SPA.LVO.100(f)/(b)(2)	Provisions for the use of EVS during take-off have not been developed. The systems evaluated did not perform well when the RVR was below 300 m. There may be some benefit for use of EVS during take-off with greater visibility and reduced light; however, such operations would need to be evaluated.		AP		
GM1 SPA.LVO.100(f)/(b)(3)	Provisions have been developed to cover use of infra-red systems only. Other sensing technologies are not intended to be excluded; however, their use will need to be evaluated to determine the appropriateness of this, or any other provision. During the development, it was envisaged what minimum equipment should be fitted to the aircraft. Given the present state of technological development, it is considered that a HUD is an essential element of the EVS equipment.		AP		
GM1 SPA.LVO.100(f)/(b)(4)	In order to avoid the need for tailored charts for approaches utilising EVS, it is envisaged that the operator will use AMC6 SPA.LVO.110 Table 6 Operations utilising EVS RVR/CMV reduction vs. normal RVR/CMV to determine the applicable RVR at the commencement of the approach.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
GM1 SPA.LVO.100(f)/(c)(1) (i)	EVS equipment should have a head-up display system (capable of displaying, airspeed, vertical speed, aircraft attitude, heading, altitude, command guidance as appropriate for the approach to be flown, path deviation indications, flight path vector and flight path angle reference cue and the EVS imagery).		AP		
GM1 SPA.LVO.100(f)/(c)(1) (ii)	EVS equipment should have a head-down view of the EVS image, or other means of displaying the EVS-derived information easily to the pilot monitoring the progress of the approach.		AP		
GM1 SPA.LVO.100(f)/(c)(1) (iii)	EVS equipment should have means to ensure that the pilot monitoring is kept in the 'loop' and crew resource management (CRM) does not break down.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval (A) LVO approval - Aeroplanes					
SPA.LVO.105	To obtain an LVO approval from the competent authority, the operator shall demonstrate compliance with the requirements of this Subpart.		AP		
AMC1 SPA.LVO.105(a)(1)(i)	The purpose of the operational demonstration should be to determine or validate the use and effectiveness of the applicable aircraft flight guidance systems, including HUDLS if appropriate, training, flight crew procedures, maintenance programme, and manuals applicable to the CAT II/III programme being approved. At least 30 approaches and landings should be accomplished in operations using the CAT II/III systems installed in each aircraft type if the requested DH is 50 ft or higher. If the DH is less than 50 ft, at least 100 approaches and landings should be accomplished.		AP		
AMC1 SPA.LVO.105(a)(1)(ii)	The purpose of the operational demonstration should be to determine or validate the use and effectiveness of the applicable aircraft flight guidance systems, including HUDLS if appropriate, training, flight crew procedures, maintenance programme, and manuals applicable to the CAT II/III programme being approved. If the operator has different variants of the same type of aircraft utilising the same basic flight control and display systems, or different basic flight control and display systems on the same type of aircraft, the operator should show that the various variants have satisfactory performance, but need not conduct a full operational demonstration for each variant. The number of approaches and landings may be based on credit given for the experience gained by another operator, using the same aeroplane type or variant and procedures.		AP		
AMC1 SPA.LVO.105(a)(1)(iii)	The purpose of the operational demonstration should be to determine or validate the use and effectiveness of the applicable aircraft flight guidance systems, including HUDLS if appropriate, training, flight crew procedures, maintenance programme, and manuals applicable to the CAT II/III programme being approved. If the number of unsuccessful approaches exceeds 5 % of the total, e.g. unsatisfactory landings, system disconnects, the evaluation programme should be extended in steps of at least 10 approaches and landings until the overall failure rate does not exceed 5 %.		AP		
AMC1 SPA.LVO.105(a)(2)	The operator should establish a data collection method to record approach and landing performance. The resulting data and a summary of the demonstration data should be made available to the competent authority for evaluation.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
AMC1 SPA.LVO.105(a)(3)	Unsatisfactory approaches and/or automatic landings should be documented and analysed.		AP		
AMC1 SPA.LVO.105(b)(1)	Demonstrations may be conducted in line operations or any other flight where the operator's procedures are being used.		AP		
AMC1 SPA.LVO.105(b)(2)	In unique situations where the completion of 100 successful landings could take an unreasonably long period of time and equivalent reliability assurance can be achieved, a reduction in the required number of landings may be considered on a case-by-case basis. Reduction of the number of landings to be demonstrated requires a justification for the reduction. This justification should take into account factors such as a small number of aircraft in the fleet, limited opportunity to use runways having CAT II/III procedures or the inability to obtain ATS sensitive area protection during good weather conditions. However, at the operator's option, demonstrations may be made on other runways and facilities. Sufficient information should be collected to determine the cause of any unsatisfactory performance (e.g. sensitive area was not protected).		AP		
AMC1 SPA.LVO.105(b)(3)	If the operator has different variants of the same type of aircraft utilising the same basic flight control and display systems, or different basic flight control and display systems on the same type or class of aircraft, the operator should show that the various variants have satisfactory performance, but need not conduct a full operational demonstration for each variant.		AP		
AMC1 SPA.LVO.105(b)(4)	Not more than 30 % of the demonstration flights should be made on the same runway.		AP		
AMC1 SPA.LVO.105(c)(1)	Data collection for operational demonstrations: Data should be collected whenever an approach and landing is attempted utilising the CAT II/III system, regardless of whether the approach is abandoned, unsatisfactory, or is concluded successfully.		AP		
AMC1 SPA.LVO.105(c)(2)(i)	Data collection for operational demonstrations: The data should, as a minimum, include the following information: Inability to initiate an approach. Identify deficiencies related to airborne equipment that preclude initiation of a CAT II/III approach.		AP		
AMC1 SPA.LVO.105(c)(2)(ii)	Data collection for operational demonstrations: The data should, as a minimum, include the following information: Abandoned approaches. Give the reasons and altitude above the runway at which approach was discontinued or the automatic landing system was disengaged.		AP		
AMC1 SPA.LVO.105(c)(2)(iii)	Data collection for operational demonstrations: The data should, as a minimum, include the following information: Touchdown or		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
	touchdown and rollout performance. Describe whether or not the aircraft landed satisfactorily within the desired touchdown area with lateral velocity or cross track error that could be corrected by the pilot or automatic system so as to remain within the lateral confines of the runway without unusual pilot skill or technique. The approximate lateral and longitudinal position of the actual touchdown point in relation to the runway centre line and the runway threshold, respectively, should be indicated in the report. This report should also include any CAT II/III system abnormalities that required manual intervention by the pilot to ensure a safe touchdown or touchdown and rollout, as appropriate.				
AMC1 SPA.LVO.105(d)(1)	Unsuccessful approaches due to the following factors may be excluded from the analysis: ATS factors. Examples include situations in which a flight is vectored too close to the final approach fix/point for adequate localiser and glide slope capture, lack of protection of ILS sensitive areas, or ATS requests the flight to discontinue the approach.		AP		
AMC1 SPA.LVO.105(d)(2)	Unsuccessful approaches due to the following factors may be excluded from the analysis: Faulty navaid signals. Navaid (e.g. ILS localiser) irregularities, such as those caused by other aircraft taxiing, over-flying the navaid (antenna).		AP		
AMC1 SPA.LVO.105(d)(3)	Unsuccessful approaches due to the following factors may be excluded from the analysis: Other factors. Any other specific factors that could affect the success of CAT II/ III operations that are clearly discernible to the flight crew should be reported.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval (H)	LVO approval - Helicopters				
AMC2 SPA.LVO.105(a)(1)	The operator should comply with the provision prescribed when introducing into CAT II or III service a helicopter type that is new to the EU: The CAT II and III success rate should not be less than that required by CS-AWO or equivalent. For helicopter types already used for CAT II or III operations in another Member State, the in-service proving programme in (e) should be used instead.		AP		
AMC2 SPA.LVO.105(a)(2)(i)	The operator should comply with the provision prescribed when introducing into CAT II or III service a helicopter type that is new to the EU: An approach is regarded as successful if the criteria are as specified in CS-AWO or equivalent are met. For helicopter types already used for CAT II or III operations in another Member State, the in-service proving programme in (e) should be used instead.		AP		
AMC2 SPA.LVO.105(a)(2)(ii)	The operator should comply with the provision prescribed when introducing into CAT II or III service a helicopter type that is new to the EU: An approach is regarded as successful if no relevant helicopter system failure occurs. For helicopter types already used for CAT II or III operations in another Member State, the in-service proving programme in (e) should be used instead.		AP		
AMC2 SPA.LVO.105(b)(1)	The operator should establish a reporting system to enable checks and periodic reviews to be made during the operational evaluation period before the operator is approved to conduct CAT II or III operations. The reporting system should cover all successful and unsuccessful approaches, with reasons for the latter, and include a record of system component failures. This reporting system should be based upon flight crew reports and automatic recordings as prescribed in (c) and (d) below.		AP		
AMC2 SPA.LVO.105(b)(2)	The recordings of approaches may be made during normal line flights or during other flights performed by the operator.		AP		
AMC2 SPA.LVO.105(c)(1)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: For operations with DH not less than 50 ft, data should be recorded and evaluated by the operator and evaluated by the competent authority when necessary.		AP		
AMC2 SPA.LVO.105(c)(2)(i)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: FATO and runway used		AP		
AMC2 SPA.LVO.105(c)(2)(ii)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: weather conditions		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
AMC2 SPA.LVO.105(c)(2)(iii)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: time		AP		
AMC2 SPA.LVO.105(c)(2)(iv)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: reason for failure leading to an aborted approach		AP		
AMC2 SPA.LVO.105(c)(2)(v)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: adequacy of speed control		AP		
AMC2 SPA.LVO.105(c)(2)(vi)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: trim at time of automatic flight control system disengagement		AP		
AMC2 SPA.LVO.105(c)(2)(vii))	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: compatibility of automatic flight control system, flight director and raw data		AP		
AMC2 SPA.LVO.105(c)(2)(vii) i)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: an indication of the position of the helicopter relative to the ILS, MLS centre line when descending through 30 m (100 ft)		AP		
AMC2 SPA.LVO.105(c)(2)(ix)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: It is sufficient for the following data to be recorded by the flight crew: touchdown position		AP		
AMC2 SPA.LVO.105(c)(3)	Data collection during airborne system demonstration – operations with DH not less than 50 ft: The number of approaches made during the initial evaluation should be sufficient to demonstrate that the performance of the system in actual airline service is such that a 90 % confidence and a 95 % approach success will result.		AP		
AMC2 SPA.LVO.105(d)(1)(i)	Data collection during airborne system demonstration – operations with DH less than 50 ft or no DH: For operations with DH less than 50 ft or no DH, a flight data recorder (FDR), or other equipment giving the appropriate information, should be used in addition to the flight crew reports to confirm that the system performs as designed in actual airline service. The following data should be recorded: distribution of ILS, MLS deviations at 30 m (100 ft), at touchdown and, if appropriate, at disconnection of the rollout control system and the maximum values of the deviations between those points		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
AMC2 SPA.LVO.105(d)(1)(ii)	Data collection during airborne system demonstration – operations with DH less than 50 ft or no DH: For operations with DH less than 50 ft or no DH, a flight data recorder (FDR), or other equipment giving the appropriate information, should be used in addition to the flight crew reports to confirm that the system performs as designed in actual airline service. The following data should be recorded: sink rate at touchdown		AP		
AMC2 SPA.LVO.105(d)(2)	Data collection during airborne system demonstration – operations with DH less than 50 ft or no DH: Any landing irregularity should be fully investigated using all available data to determine its cause.		AP		
AMC2 SPA.LVO.105(e)(1)	The operator fulfilling the provisions of (f) above should be deemed to have met the in-service proving contained in this subparagraph. The system should demonstrate reliability and performance in line operations consistent with the operational concepts. A sufficient number of successful landings should be accomplished in line operations, including training flights, using the auto-land and rollout system installed in each helicopter type.		AP		
AMC2 SPA.LVO.105(e)(2)	The operator fulfilling the provisions of (f) above should be deemed to have met the in-service proving contained in this subparagraph. The demonstration should be accomplished using a CAT II or CAT III ILS. Demonstrations may be made on other ILS or MLS facilities if sufficient data are recorded to determine the cause of unsatisfactory performance.		AP		
AMC2 SPA.LVO.105(e)(3)	The operator fulfilling the provisions of (f) above should be deemed to have met the in-service proving contained in this subparagraph. If the operator has different variants of the same type of helicopter utilising the same basic flight control and display systems, or different basic flight control and display systems on the same type of helicopter, the operator should show that the variants comply with the basic system performance criteria, but the operator need not conduct a full operational demonstration for each variant.		AP		
AMC2 SPA.LVO.105(e)(4)	The operator fulfilling the provisions of (f) above should be deemed to have met the in-service proving contained in this subparagraph. Where the operator introduces a helicopter type that has already been approved by the competent authority of any Member State for CAT II and/or CAT III operations, a reduced proving programme may be acceptable.		AP		

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Approval - Monitoring	LVO approval - Continuous Monitoring - All Aircraft				
AMC3 SPA.LVO.105(a)	After obtaining the initial approval, the operations should be continuously monitored by the operator to detect any undesirable trends before they become hazardous. Flight crew reports may be used to achieve this.		AP		
AMC3 SPA.LVO.105(b)	The following information should be retained for a period of 12 months: (1) the total number of approaches, by aircraft type, where the airborne CAT II or III equipment was utilised to make satisfactory, actual or practice, approaches to the applicable CAT II or III minima; and (2) reports of unsatisfactory approaches and/or automatic landings, by aerodrome and aircraft registration, in the following categories: (i) airborne equipment faults; (ii) ground facility difficulties; (iii) missed approaches because of ATC instructions; or (iv) other reasons.		AP		
AMC3 SPA.LVO.105 c	The operator should establish a procedure to monitor the performance of the automatic landing system or HUDLS to touchdown performance, as appropriate, of each aircraft.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval - Transition LVO approval - Transitional Periods for CAT II and CAT III Operations					
AMC4 SPA.LVO.105(a)	Operators with no previous CAT II or CAT III experience (1) The operator without previous CAT II or III operational experience, applying for a CAT II or CAT IIIA operational approval, should demonstrate to the competent authority that it has gained a minimum experience of 6 months of CAT I operations on the aircraft type. (2) The operator applying for a CAT IIIB operational approval should demonstrate to the competent authority that it has already completed 6 months of CAT II or IIIA operations on the aircraft type.				
AMC4 SPA.LVO.105(b)	Operators with previous CAT II or III experience (1) The operator with previous CAT II or CAT III experience, applying for a CAT II or CAT III operational approval with reduced transition periods as set out in (a), should demonstrate to the competent authority that it has maintained the experience previously gained on the aircraft type. (2) The operator approved for CAT II or III operations using auto-coupled approach procedures, with or without auto-land, and subsequently introducing manually flown CAT II or III operations using a HUDLS should provide the operational demonstrations set out in AMC1 SPA.LVO.105 and AMC2 SPA.LVO.105 as if it would be a new applicant for a CAT II or CAT III approval.				

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval - MAINT LVO approval - Maintenance of CAT II, CAT III and LVTO Equipment					
AMC5 SPA.LVO.105	Maintenance instructions for the on-board guidance systems should be established by the operator, in liaison with the manufacturer, and included in the operator's aircraft maintenance programme in accordance with Annex I to Regulation (EC) No 2042/20031 (Part-M).		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval - Aerodromes LVO approval - Eligible Aerodromes and Runways					
AMC6 SPA.LVO.105(a)	Each aircraft type/runway combination should be verified by the successful completion of at least one approach and landing in CAT II or better conditions, prior to commencing CAT III operations.		AP		
AMC6 SPA.LVO.105(b)	For runways with irregular pre-threshold terrain or other foreseeable or known deficiencies, each aircraft type/runway combination should be verified by operations in CAT I or better conditions, prior to commencing LTS CAT I, OTS CAT II or CAT III operations.		AP		
AMC6 SPA.LVO.105(c)	If the operator has different variants of the same type of aircraft in accordance with (d), utilising the same basic flight control and display systems, or different basic flight control and display systems on the same type of aircraft in accordance with (d), the operator should show that the variants have satisfactory operational performance, but need not conduct a full operational demonstration for each variant/runway combination.		AP		
AMC6 SPA.LVO.105(d)(1)(i)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: level of technology, including flight control/guidance system (FGS) and associated displays and controls		AP		
AMC6 SPA.LVO.105(d)(1)(ii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: level of technology, including FMS and level of integration with the FGS		AP		
AMC6 SPA.LVO.105(d)(1)(iii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: level of technology, including use of HUDLS		AP		
AMC6 SPA.LVO.105(d)(2)(i)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: operational procedures, including alert height		AP		
AMC6 SPA.LVO.105(d)(2)(ii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: operational procedures, including manual landing /automatic landing		AP		
AMC6 SPA.LVO.105(d)(2)(iii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
	aircraft if that type/variant has the same or similar: operational procedures, including no DH operations				
AMC6 SPA.LVO.105(d)(2)(iv))	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: operational procedures, including use of HUD/HUDLS in hybrid operations		AP		
AMC6 SPA.LVO.105(d)(3)(i)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: handling characteristics, including manual landing from automatic or HUDLS guided approach		AP		
AMC6 SPA.LVO.105(d)(3)(ii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: handling characteristics, including manual missed approach procedure from automatic approach		AP		
AMC6 SPA.LVO.105(d)(3)(iii)	For the purpose of this AMC, an aircraft type or variant of an aircraft type should be deemed to be the same type/variant of aircraft if that type/variant has the same or similar: handling characteristics, including automatic/manual rollout		AP		
AMC6 SPA.LVO.105(e)	Operators using the same aircraft type/class or variant of a type in accordance with (d) above may take credit from each other's experience and records in complying with this subparagraph.		AP		
AMC6 SPA.LVO.105(f)	Where an approval is sought for OTS CAT II, the same provisions as set out for CAT II should be applied.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Approval - Criteria LVO approval - Criteria for a successful CAT II, OTS CAT II, CAT III Approach and Automatic Landing					
GM1 SPA.LVO.105(a)	The purpose of this GM is to provide operators with supplemental information regarding the criteria for a successful approach and landing to facilitate fulfilling the requirements prescribed in SPA.LVO.105.		AP		
GM1 SPA.LVO.105(b)(1)(i)	An approach may be considered to be successful if from 500 ft to start of flare speed is maintained as specified in AMC-AWO 231, paragraph 2 'Speed Control'.		AP		
GM1 SPA.LVO.105(b)(1)(ii)	An approach may be considered to be successful if from 500 ft to start of flare no relevant system failure occurs.		AP		
GM1 SPA.LVO.105(b)(2)(i)	An approach may be considered to be successful if from 300 ft to DH no excess deviation occurs.		AP		
GM1 SPA.LVO.105(b)(2)(ii)	An approach may be considered to be successful if no centralised warning gives a missed approach procedure command (if installed).		AP		
GM1 SPA.LVO.105(c)(1)	An automatic landing may be considered to be successful if no relevant system failure occurs.		AP		
GM1 SPA.LVO.105(c)(2)	An automatic landing may be considered to be successful if no flare failure occurs.		AP		
GM1 SPA.LVO.105(c)(3)	An automatic landing may be considered to be successful if no de-crab failure occurs (if installed).		AP		
GM1 SPA.LVO.105(c)(4)	An automatic landing may be considered to be successful if longitudinal touchdown is beyond a point on the runway 60 m after the threshold and before the end of the touchdown zone light (900 m from the threshold).		AP		
GM1 SPA.LVO.105(c)(5)	An automatic landing may be considered to be successful if lateral touchdown with the outboard landing gear is not outside the touchdown zone light edge.		AP		
GM1 SPA.LVO.105(c)(6)	An automatic landing may be considered to be successful if sink rate is not excessive.		AP		
GM1 SPA.LVO.105(c)(7)	An automatic landing may be considered to be successful if bank angle does not exceed a bank angle limit.		AP		
GM1 SPA.LVO.105(c)(8)	An automatic landing may be considered to be successful if no rollout failure or deviation (if installed) occurs.		AP		
GM1 SPA.LVO.105(d)	More details can be found in CS-AWO 131, CS-AWO 231 and AMC-AWO 231.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Requirements	General operating requirements				
SPA.LVO.110(a)(1)	The operator shall only conduct LTS CAT I operations if each aircraft concerned is certified for operations to conduct CAT II operations.		AP		
SPA.LVO.110(a)(2)(i)	The operator shall only conduct LTS CAT I operations if the approach is flown auto-coupled to an auto-land that needs to be approved for CAT IIIA operations.		AP		
SPA.LVO.110(a)(2)(ii)	The operator shall only conduct LTS CAT I operations if the approach is flown using an approved head-up display landing system (HUDLS) to at least 150 ft above the threshold.		AP		
SPA.LVO.110(b)(1)	The operator shall only conduct CAT II, OTS CAT II or CAT III operations if each aircraft concerned is certified for operations with a decision height (DH) below 200 ft, or no DH, and equipped in accordance with the applicable airworthiness requirements.		AP		
SPA.LVO.110(b)(2)	The operator shall only conduct CAT II, OTS CAT II or CAT III operations if a system for recording approach and/or automatic landing success and failure is established and maintained to monitor the overall safety of the operation.		AP		
SPA.LVO.110(b)(3)	The operator shall only conduct CAT II, OTS CAT II or CAT III operations if the DH is determined by means of a radio altimeter.		AP		
SPA.LVO.110(b)(4)	The operator shall only conduct CAT II, OTS CAT II or CAT III operations if the flight crew consists of at least two pilots.		AP		
SPA.LVO.110(b)(5)	The operator shall only conduct CAT II, OTS CAT II or CAT III operations if all height call-outs below 200 ft above the aerodrome threshold elevation are determined by a radio altimeter.		AP		
SPA.LVO.110(c)(1)	The operator shall only conduct approach operations utilising an EVS if the EVS is certified for the purpose of this Subpart and combines infra-red sensor image and flight information on the HUD.		AP		
SPA.LVO.110(c)(2)	The operator shall only conduct approach operations utilising an EVS if for operations with an RVR below 550 m, the flight crew consists of at least two pilots.		AP		
SPA.LVO.110(c)(3)	The operator shall only conduct approach operations utilising an EVS if for CAT I operations, natural visual reference to runway cues is attained at least at 100 ft above the aerodrome threshold elevation.		AP		
SPA.LVO.110(c)(4)(i)	The operator shall only conduct approach operations utilising an EVS if for approach procedure with vertical guidance (APV) and		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
	non-precision approach (NPA) operations flown with CDFA technique, natural visual reference to runway cues is attained at least at 200 ft above the aerodrome threshold elevation and the following requirements are complied with the approach is flown using an approved vertical flight path guidance mode.				
SPA.LVO.110(c)(4)(ii)	The operator shall only conduct approach operations utilising an EVS if for approach procedure with vertical guidance (APV) and non-precision approach (NPA) operations flown with CDFA technique, natural visual reference to runway cues is attained at least at 200 ft above the aerodrome threshold elevation and the following requirements are complied with the approach segment from final approach fix (FAF) to runway threshold is straight and the difference between the final approach course and the runway centreline is not greater than 2 °.		AP		
SPA.LVO.110(c)(4)(iii)	The operator shall only conduct approach operations utilising an EVS if for approach procedure with vertical guidance (APV) and non-precision approach (NPA) operations flown with CDFA technique, natural visual reference to runway cues is attained at least at 200 ft above the aerodrome threshold elevation and the following requirements are complied with the final approach path is published and not greater than 3,7°.		AP		
SPA.LVO.110(c)(4)(iv)	The operator shall only conduct approach operations utilising an EVS if for approach procedure with vertical guidance (APV) and non-precision approach (NPA) operations flown with CDFA technique, natural visual reference to runway cues is attained at least at 200 ft above the aerodrome threshold elevation and the following requirements are complied with the maximum cross-wind components established during certification of the EVS are not exceeded.		AP		
GM1 SPA.LVO.110(c)(4)(i)	The term 'approved' means that the vertical flight path guidance mode has been certified by the Agency as part of the avionics product.		AP		

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Aerodrome	Aerodrome related requirements				
SPA.LVO.115(a)(1)	The operator shall not use an aerodrome for LVOs below a visibility of 800 m unless the aerodrome has been approved for such operations by the State of the aerodrome.		AP		
SPA.LVO.115(a)(2)	The operator shall not use an aerodrome for LVOs below a visibility of 800 m unless low visibility procedures (LVP) have been established.		AP		
SPA.LVO.115(b)	If the operator selects an aerodrome where the term LVP is not used, the operator shall ensure that there are equivalent procedures that adhere to the requirements of LVP at the aerodrome. This situation shall be clearly noted in the operations manual or procedures manual including guidance to the flight crew on how to determine that the equivalent LVP are in effect.		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Flight Crew	Flight crew training and qualifications				
SPA.LVO.120(a)(1)	The operator shall ensure that, prior to conducting an LVO each flight crew member complies with the training and checking requirements prescribed in the operations manual, including flight simulation training device (FSTD) training, in operating to the limiting values of RVR/VIS (visibility) and DH specific to the operation and the aircraft type.		AP		
SPA.LVO.120(a)(2)	The operator shall ensure that, prior to conducting an LVO each flight crew member is qualified in accordance with the standards prescribed in the operations manual.		AP		
SPA.LVO.120(b)	The operator shall ensure that, prior to conducting an LVO the training and checking is conducted in accordance with a detailed syllabus.		AP		
AMC1 SPA.LVO.120(a)(1)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with no CAT II or CAT III experience should complete the full training programme prescribed in (b), (c), and (d) below.		AP		
AMC1 SPA.LVO.120(a)(2)(i)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with CAT II or CAT III experience with a similar type of operation (auto-coupled/auto-land, HUDLS/hybrid HUDLS or EVS) or CAT II with manual land, if appropriate, with another EU operator may undertake an abbreviated ground training course if operating a different type or class from that on which the previous CAT II or CAT III experience was gained.		AP		
AMC1 SPA.LVO.120(a)(2)(ii)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with CAT II or CAT III experience with a similar type of operation (auto-coupled/auto-land, HUDLS/hybrid HUDLS or EVS) or CAT II with manual land, if appropriate, with another EU operator may undertake an abbreviated ground, FSTD and/or flight training course if operating the same type or class and variant of the same type or class on which the previous CAT II or CAT III experience was gained. The abbreviated course should include at least the provisions of (d)(1), (d)(2)(i) or (d)(2)(ii) as appropriate and (d)(3)(i). The operator may reduce the number of approaches/landings required by (d)(2)(i) if the type/class or the variant of the type or class has the same or		AP		

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	similar (A) level of technology - flight control/guidance system (FGS); (B) operating procedures; (C) handling characteristics; (D) use of HUDLS/hybrid HUDLS; and (E) use of EVS, as the previously operated type or class, otherwise the provisions of (d)(2)(i) should be met.				
AMC1 SPA.LVO.120(a)(3)(i)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with CAT II or CAT III experience with the operator may undertake an abbreviated ground, FSTD and/or flight training course. When changing aircraft type or class, the abbreviated course should include at least the provisions of (d)(1), (d)(2)(i) or (d)(2)(ii) as appropriate and (d)(3)(i).		AP		
AMC1 SPA.LVO.120(a)(3)(ii)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with CAT II or CAT III experience with the operator may undertake an abbreviated ground, FSTD and/or flight training course. When changing to a different variant of aircraft within the same type or class rating that has the same or similar (A) level of technology - FGS; (B) operating procedures - integrity; (C) handling characteristics; (D) use of HUDLS/Hybrid HUDLS; and (E) use of EVS, as the previously operated type or class, a difference course or familiarisation appropriate to the change of variant should fulfil the abbreviated course provisions.		AP		
AMC1 SPA.LVO.120(a)(3)(iii)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. Flight crew members with CAT II or CAT III experience with the operator may undertake an abbreviated ground, FSTD and/or flight training course. When changing to a different variant of aircraft within the same type or class rating that has a significantly different (A) level of technology - FGS; (B) operating procedures - integrity; (C) handling characteristics; (D) use of HUDLS/Hybrid HUDLS; or (E) use of EVS, the provisions of (d)(1), (d)(2)(i) or (d)(2)(ii) as appropriate and (d)(3)(i) should be fulfilled.		AP		
AMC1 SPA.LVO.120(a)(4)(i)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. The operator should ensure when undertaking CAT II or CAT III operations with different variant(s) of aircraft within the same type or class rating that the differences and/or similarities of the aircraft concerned justify such operations, taking into account at least the level of technology, including the: (A) FGS		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
	and associated displays and controls. (B) FMS and its integration or not with the FGS; and (C) use of HUD/HUDLS with hybrid systems and/or EVS;				
AMC1 SPA.LVO.120(a)(4)(ii)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. The operator should ensure when undertaking CAT II or CAT III operations with different variant(s) of aircraft within the same type or class rating that the differences and/or similarities of the aircraft concerned justify such operations, taking into account at least operating procedures, including: (A) fail-passive / fail-operational, alert height; (B) manual landing / automatic landing; (C) no DH operations; and (D) use of HUD/HUDLS with hybrid systems.		AP		
AMC1 SPA.LVO.120(a)(4)(iii)	The operator should ensure that flight crew member training programmes for LVO include structured courses of ground, FSTD and/or flight training. The operator should ensure when undertaking CAT II or CAT III operations with different variant(s) of aircraft within the same type or class rating that the differences and/or similarities of the aircraft concerned justify such operations, taking into account at least handling characteristics, including: (A) manual landing from automatic HUDLS and/or EVS guided approach; (B) manual missed approach procedure from automatic approach; and (C) automatic/manual rollout.		AP		
AMC1 SPA.LVO.120(b)	The initial ground training course for LVO should include at least the following: (1) characteristics and limitations of the ILS and/or MLS; (2) characteristics of the visual aids; (3) characteristics of fog; (4) operational capabilities and limitations of the particular airborne system to include HUD symbology and EVS characteristics, if appropriate; Annex to ED Decision 2012/019/R Page 44 of 109 (5) effects of precipitation, ice accretion, low level wind shear and turbulence; (6) effect of specific aircraft/system malfunctions; (7) use and limitations of RVR assessment systems; (8) principles of obstacle clearance requirements; (9) recognition of and action to be taken in the event of failure of ground equipment; (10) procedures and precautions to be followed with regard to surface movement during operations when the RVR is 400 m or less and any additional procedures required for take-off in conditions below 150 m (200 m for category D aeroplanes); (11) significance of DHs based upon radio altimeters and the effect of terrain profile in the approach area on radio altimeter readings and on the automatic approach/landing systems; (12) importance and significance of alert height, if applicable, and the action in the event of any failure		AP		

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	above and below the alert height; (13) qualification requirements for pilots to obtain and retain approval to conduct LVOs; and (14) importance of correct seating and eye position.				
AMC1 SPA.LVO.120(c)(1)	FSTD and/or flight training for LVO should include at least: (i) checks of satisfactory functioning of equipment, both on the ground and in flight; (ii) effect on minima caused by changes in the status of ground installations; (iii) monitoring of: (A) automatic flight control systems and auto-land status annunciators with emphasis on the action to be taken in the event of failures of such systems; and (B) HUD/HUDLS/EVS guidance status and annunciators as appropriate, to include head-down displays; (iv) actions to be taken in the event of failures such as engines, electrical systems, hydraulics or flight control systems; (v) the effect of known unserviceabilities and use of MELs; (vi) operating limitations resulting from airworthiness certification; (vii) guidance on the visual cues required at DH together with information on maximum deviation allowed from glide path or localiser; and (viii) the importance and significance of alert height if applicable and the action in the event of any failure above and below the alert height.		AP		
AMC1 SPA.LVO.120(c)(2)	Flight crew members should be trained to carry out their duties and instructed on the coordination required with other crew members. Maximum use should be made of suitably equipped FSTDs for this purpose.		AP		
AMC1 SPA.LVO.120(c)(3)	Training should be divided into phases covering normal operation with no aircraft or equipment failures but including all weather conditions that may be encountered and detailed scenarios of aircraft and equipment failure that could affect CAT II or III operations. If the aircraft system involves the use of hybrid or other special systems, such as HUD/HUDLS or enhanced vision equipment, then flight crew members should practise the use of these systems in normal and abnormal modes during the FSTD phase of training.		AP		
AMC1 SPA.LVO.120(c)(4)	Incapacitation procedures appropriate to LVTO, CAT II and CAT III operations should be practised.		AP		
AMC1 SPA.LVO.120(c)(5)	For aircraft with no FSTD available to represent that specific aircraft, operators should ensure that the flight training phase specific to the visual scenarios of CAT II operations is conducted in a specifically approved FSTD. Such training should include a minimum of four approaches. Thereafter, the training and procedures that are type specific should be practised in the aircraft.		AP		

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AMC1 SPA.LVO.120(c)(6)	Initial CAT II and III training should include at least the following exercises: (i) approach using the appropriate flight guidance, autopilots and control systems installed in the aircraft, to the appropriate DH and to include transition to visual flight and landing; (ii) approach with all engines operating using the appropriate flight guidance systems, autopilots, HUDLS and/or EVS and control systems installed in the aircraft down to the appropriate DH followed by missed approach - all without external visual reference; (iii) where appropriate, approaches utilising automatic flight systems to provide automatic flare, hover, landing and rollout; and (iv) normal operation of the applicable system both with and without acquisition of visual cues at DH.		AP		
AMC1 SPA.LVO.120(c)(7)	Subsequent phases of training should include at least: (i) approaches with engine failure at various stages on the approach; (ii) approaches with critical equipment failures, such as electrical systems, auto flight systems, ground and/or airborne ILS, MLS systems and status monitors; (iii) approaches where failures of auto flight equipment and/or HUD/HUDLS/EVS at low level require either: (A) reversion to manual flight to control flare, hover, landing and rollout or missed approach; or (B) reversion to manual flight or a downgraded automatic mode to control missed approaches from, at or below DH including those which may result in a touchdown on the runway; (iv) failures of the systems that will result in excessive localiser and/or glideslope deviation, both above and below DH, in the minimum visual conditions specified for the operation. In addition, a continuation to a manual landing should be practised if a head-up display forms a downgraded mode of the automatic system or the head-up display forms the only flare mode; and (v) failures and procedures specific to aircraft type or variant.		AP		
AMC1 SPA.LVO.120(c)(8)	The training programme should provide practice in handling faults which require a reversion to higher minima.		AP		
AMC1 SPA.LVO.120(c)(9)	The training programme should include the handling of the aircraft when, during a fail-passive CAT III approach, the fault causes the autopilot to disconnect at or below DH when the last reported RVR is 300 m or less.		AP		
AMC1 SPA.LVO.120(c)(10)	Where take-offs are conducted in RVRs of 400 m and below, training should be established to cover systems failures and engine failure resulting in continued as well as rejected take-offs.		AP		
AMC1 SPA.LVO.120(c)(11)	The training programme should include, where appropriate, approaches where failures of the HUDLS and/or EVS equipment at low level require either: (i) reversion to head down displays to control missed approach; or (ii) reversion to flight with no, or		AP		

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	downgraded, HUDLS guidance to control missed approaches from DH or below, including those which may result in a touchdown on the runway.				
AMC1 SPA.LVO.120(c)(12)	When undertaking LVTO, LTS CAT I, OTS CAT II, CAT II and CAT III operations utilising a HUD/HUDLS, hybrid HUD/HUDLS or an EVS, the training and checking programme should include, where appropriate, the use of the HUD/HUDLS in normal operations during all phases of flight.		AP		
AMC1 SPA.LVO.120(d)(1)	Flight crew members should complete the following low visibility procedures (LVPs) conversation training if converting to a new type or class or variant of aircraft in which LVTO, LTS CAT I, OTS CAT II, approach operations utilising EVS with an RVR of 800 m or less and CAT II and CAT III operations will be conducted. Conditions for abbreviated courses are prescribed in (a)(2), (a)(3) and (a)(4). The appropriate ground training provisions are as prescribed in (b), taking into account the flight crew member's CAT II and CAT III training and experience.		AP		
AMC1 SPA.LVO.120(d)(2)	Flight crew members should complete the following low visibility procedures (LVPs) conversation training if converting to a new type or class or variant of aircraft in which LVTO, LTS CAT I, OTS CAT II, approach operations utilising EVS with an RVR of 800 m or less and CAT II and CAT III operations will be conducted. Conditions for abbreviated courses are prescribed in (a)(2), (a)(3) and (a)(4). FSTD training and/or flight training (i) A minimum of six, respectively eight for HUDLS with or without EVS, approaches and/or landings in an FSTD. The provisions for eight HUDLS approaches may be reduced to six when conducting hybrid HUDLS operations. (ii) Where no FSTD is available to represent that specific aircraft, a minimum of three, respectively five for HUDLS and/or EVS, approaches including at least one missed approach procedure is required on the Annex to ED Decision 2012/019/R Page 47 of 109 aircraft. For hybrid HUDLS operations a minimum of three approaches is required, including at least one missed approach procedure. (iii) Appropriate additional training if any special equipment is required such as head-up displays or enhanced vision equipment. When approach operations utilising EVS are conducted with an RVR of less than 800 m, a minimum of five approaches, including at least one missed approach procedure are required on the aircraft.		AP		
AMC1 SPA.LVO.120(d)(3)	Flight crew members should complete the following low visibility procedures (LVPs) conversation training if converting to a new type or class or variant of aircraft in which LVTO, LTS CAT I, OTS CAT		AP		

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
	II, approach operations utilising EVS with an RVR of 800 m or less and CAT II and CAT III operations will be conducted. Conditions for abbreviated courses are prescribed in (a)(2), (a)(3) and (a)(4). The flight crew qualification provisions are specific to the operator and the type of aircraft operated. (i) The operator should ensure that each flight crew member completes a check before conducting CAT II or III operations. (ii) The check specified in (d)(3)(i) may be replaced by successful completion of the FSTD and/or flight training specified in (d)(2).				
AMC1 SPA.LVO.120(d)(4)	Flight crew members should complete the following low visibility procedures (LVPs) conversation training if converting to a new type or class or variant of aircraft in which LVTO, LTS CAT I, OTS CAT II, approach operations utilising EVS with an RVR of 800 m or less and CAT II and CAT III operations will be conducted. Conditions for abbreviated courses are prescribed in (a)(2), (a)(3) and (a)(4). Flight crew member should undergo the following line flying under supervision (LIFUS): (i) For CAT II when a manual landing or a HUDLS approach to touchdown is required, a minimum of: (A) three landings from autopilot disconnect; and (B) four landings with HUDLS used to touchdown, except that only one manual landing, respectively two using HUDLS, to touchdown is required when the training required in (d)(2) has been carried out in an FSTD qualified for zero flight time conversion. (ii) For CAT III, a minimum of two auto-lands, except that: (A) only one auto-land is required when the training required in (d)(2) has been carried out in an FSTD qualified for zero flight time conversion; (B) no auto-land is required during LIFUS when the training required in (d)(2) has been carried out in an FSTD qualified for zero flight time (ZFT) conversion and the flight crew member successfully completed the ZFT type rating conversion course; and (C) the flight crew member, trained and qualified in accordance with (B), is qualified to operate during the conduct of LIFUS to the lowest approved DA/H and RVR as stipulated in the operations manual. (iii) For CAT III approaches using HUDLS to touchdown, a minimum of four approaches.		AP		
AMC1 SPA.LVO.120(e)(1)	Before commencing CAT II operations, the following additional provisions should be applicable to pilots-in-command/commanders, or pilots to whom conduct of the flight may be delegated, who are new to the aircraft type or class: (i) 50 hours or 20 sectors on the type, including LIFUS; and (ii) 100 m should be added to the applicable CAT II RVR minima when the operation requires a CAT II manual landing or use of HUDLS to touchdown until: (A) a total of 100 hours or 40 sectors, including LIFUS, has been achieved on		AP		

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	the type; or (B) a total of 50 hours or 20 sectors, including LIFUS, has been achieved on the type where the flight crew member has been previously qualified for CAT II manual landing operations with an EU operator; (C) for HUDLS operations the sector provisions in (e)(1) and (e)(2)(i) should always be applicable; the hours on type or class do not fulfil the provisions.				
AMC1 SPA.LVO.120(e)(2)	Before commencing CAT III operations, the following additional provisions should be applicable to pilots-in-command/commanders, or pilots to whom conduct of the flight may be delegated, who are new to the aircraft type: (i) 50 hours or 20 sectors on the type, including LIFUS; and (ii) 100 m should be added to the applicable CAT II or CAT III RVR minima unless he/she has previously qualified for CAT II or III operations with an EU operator, until a total of 100 hours or 40 sectors, including LIFUS, has been achieved on the type.		AP		
AMC1 SPA.LVO.120(f)(1)	The operator should ensure that, in conjunction with the normal recurrent training and operator's proficiency checks, the pilot's knowledge and ability to perform the tasks associated with the particular category of operation, for which the pilot is authorised by the operator, are checked. The required number of approaches to be undertaken in the FSTD within the validity period of the operator's proficiency check should be a minimum of two, respectively four when HUDLS and/or EVS is utilised to touchdown, one of which should be a landing at the lowest approved RVR. In addition one, respectively two for HUDLS and/or operations utilising EVS, of these approaches may be substituted by an approach and landing in the aircraft using approved CAT II and CAT III procedures. One missed approach should be flown during the conduct of an operator proficiency check. If the operator is approved to conduct take-off with RVR less than 150 m, at least one LVTO to the lowest applicable minima should be flown during the conduct of the operator's proficiency check.		AP		
AMC1 SPA.LVO.120(f)(2)	For CAT III operations the operator should use an FSTD approved for this purpose.		AP		
AMC1 SPA.LVO.120(f)(3)	For CAT III operations on aircraft with a fail-passive flight control system, including HUDLS, a missed approach should be completed by each flight crew member at least once over the period of three consecutive operator proficiency checks as the result of an autopilot failure at or below DH when the last reported RVR was 300 m or less.		AP		

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AMC1 SPA.LVO.120(g)(1)	Prior to conducting take-offs in RVRs below 400 m, the flight crew should undergo the following training: (i) normal take-off in minimum approved RVR conditions; (ii) take-off in minimum approved RVR conditions with an engine failure: (A) for aeroplanes between V1 and V2 (take-off safety speed), or as soon as safety considerations permit; (B) for helicopters at or after take-off decision point (TDP); and (iii) take-off in minimum approved RVR conditions with an engine failure: (A) for aeroplanes before V1 resulting in a rejected take-off; and (B) for helicopters before the TDP.		AP		
AMC1 SPA.LVO.120(g)(2)	The operator approved for LVTOs with an RVR below 150 m should ensure that the training specified by (g)(1) is carried out in an FSTD. This training should include the use of any special procedures and equipment.		AP		
AMC1 SPA.LVO.120(g)(3)	The operator should ensure that a flight crew member has completed a check before conducting LVTO in RVRs of less than 150 m. The check may be replaced by successful completion of the FSTD and/or flight training prescribed in (g)(1) on conversion to an aircraft type.		AP		
AMC1 SPA.LVO.120(h)(1)	Operators conducting LTS CAT I operations, OTS CAT II operations and operations utilising EVS with RVR of 800 m or less should comply with the provisions applicable to CAT II operations and include the provisions applicable to HUDLS, if appropriate. The operator may combine these additional provisions where appropriate provided that the operational procedures are compatible.		AP		
AMC1 SPA.LVO.120(h)(2)	During conversion training the total number of approaches should not be additional to the requirements of Subpart FC of Annex III (ORO.FC) provided the training is conducted utilising the lowest applicable RVR. During recurrent training and checking the operator may also combine the separate requirements provided the above operational procedure provision is met and at least one approach using LTS CAT I minima is conducted at least once every 18 months.		AP		
AMC1 SPA.LVO.120(h)(3)	During conversion training the total number of approaches should not be less than those to complete CAT II training utilising a HUD/HUDLS. During recurrent training and checking the operator may also combine the separate provisions provided the above operational procedure provision is met and at least one approach using OTS CAT II minima is conducted at least once every 18 months.		AP		

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AMC1 SPA.LVO.120(h)(4)	During conversion training the total number of approaches required should not be less than that required to complete CAT II training utilising a HUD. During recurrent training and checking the operator may also combine the separate provisions provided the above operational procedure provision is met and at least one approach utilising EVS is conducted at least once every 12 months.		AP		
GM1 SPA.LVO.120	The number of approaches referred to in AMC1 SPA.LVO.120 (g)(1) includes one approach and landing that may be conducted in the aircraft using approved CAT II/III procedures. This approach and landing may be conducted in normal line operation or as a training flight.		AP		

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Procedures	Operating procedures				
SPA.LVO.125(a)	The operator shall establish procedures and instructions to be used for LVOs. These procedures and instructions shall be included in the operations manual or procedures manual and contain the duties of flight crew members during taxiing, take-off, approach, flare, landing, rollout and missed approach operations, as appropriate.		AP		
SPA.LVO.125(b)(1)	Prior to commencing an LVO, the pilot-in-command/commander shall be satisfied that the status of the visual and non-visual facilities is sufficient.		AP		
SPA.LVO.125(b)(2)	Prior to commencing an LVO, the pilot-in-command/commander shall be satisfied that appropriate LVPs are in force according to information received from air traffic services (ATS).		AP		
SPA.LVO.125(b)(3)	Prior to commencing an LVO, the pilot-in-command/commander shall be satisfied that flight crew members are properly qualified.		AP		
AMC1 SPA.LVO.125(a)	LVOs should include the following: (1) manual take-off, with or without electronic guidance systems or HUDLS/hybrid HUD/HUDLS; (2) approach flown with the use of a HUDLS/hybrid HUD/HUDLS and/or EVS; (3) auto-coupled approach to below DH, with manual flare, hover, landing and rollout; (4) auto-coupled approach followed by auto-flare, hover, auto-landing and manual rollout; and (5) auto-coupled approach followed by auto-flare, hover, auto-landing and auto-rollout, when the applicable RVR is less than 400 m.		AP		
AMC1 SPA.LVO.125(b)(1)	The precise nature and scope of procedures and instructions given should depend upon the airborne equipment used and the flight deck procedures followed. The operator should clearly define flight crew member duties during take-off, approach, flare, hover, rollout and missed approach in the operations manual. Particular emphasis should be placed on flight crew responsibilities during transition from non-visual conditions to visual conditions, and on the procedures to be used in deteriorating visibility or when failures occur. Special attention should be paid to the distribution of flight deck duties so as to ensure that the workload of the pilot making the decision to land or execute a missed approach enables him/her to devote himself/herself to supervision and the decision making process.		AP		
AMC1 SPA.LVO.125(b)(2)	The instructions should be compatible with the limitations and mandatory procedures contained in the AFM and cover the following items in particular: (i) checks for the satisfactory		AP		

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	<p>functioning of the aircraft equipment, both before departure and in flight; (ii) effect on minima caused by changes in the status of the ground installations and airborne equipment; (iii) procedures for the take-off, approach, flare, hover, landing, rollout and missed approach; (iv) procedures to be followed in the event of failures, warnings to include HUD/HUDLS/EVS and other non-normal situations; (v) the minimum visual reference required; (vi) the importance of correct seating and eye position; (vii) action that may be necessary arising from a deterioration of the visual reference; (viii) allocation of crew duties in the carrying out of the procedures according to (b)(2)(i) to (iv) and (vi), to allow the pilot-in-command/commander to devote himself/herself mainly to supervision and decision making; (ix) the rule for all height calls below 200 ft to be based on the radio altimeter and for one pilot to continue to monitor the aircraft instruments until the landing is completed; (x) the rule for the localiser sensitive area to be protected; (xi) the use of information relating to wind velocity, wind shear, turbulence, runway contamination and use of multiple RVR assessments; (xii) procedures to be used for: (A) LTS CAT I; (B) OTS CAT II; (C) approach operations utilising EVS; and (D) practice approaches and landing on runways at which the full CAT II or CAT III aerodrome procedures are not in force; (xiii) operating limitations resulting from airworthiness certification; and (xiv) information on the maximum deviation allowed from the ILS glide path and/or localiser.</p>				

Respective legal reference	Requirement	Manual Reference	App/ Acc	Remarks (for Authority use only)	Doc Stat
Equipment	Minimum equipment				
SPA.LVO.130(a)	The operator shall include the minimum equipment that has to be serviceable at the commencement of an LVO in accordance with the aircraft flight manual (AFM) or other approved document in the operations manual or procedures manual, as applicable.		AP		
SPA.LVO.130(b)	The pilot-in-command/commander shall be satisfied that the status of the aircraft and of the relevant airborne systems is appropriate for the specific operation to be conducted.		AP		

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Additional remarks

End of Compliance List