Application for steep approach approval

Submit application to:

CROATIAN CIVIL AVIATION AGENCY
Flight Operations and Training Department
Ulica grada Vukovara 284, 10000 Zagreb

APPLICANT'S INFORMATION		
Applicant's name		
Applicant's address		
Applicant's identification number (OIB)		
Applicant's contact (Phone , E-mail)		
APPLICANT'S LEGAL REPRESENTATIVE INFORMATIONS		
Name and surame		
Address[1]		
Personal identification number (OIB)		
Contact (Phone, E-mail)		

[1] Fill in case of representation by power of attorney.

Completion of form: Each relevant box should be completed with a tick (√) or a (X). Form must be completed by referring to a document of applicant's documentation system, add manual reference, chapter and sub-chapter. Please ensure all applicable areas are completed.

1. GENERAL

General Information			
Aeroplane Registration	Aeroplane Type Designation / Model Designation	Aeroplane Serial No.	Aeroplane Manufacturer

2. AIRWORTHINESS

Eligibility Airworthiness Documents					*To be completed by applicant*
2.1 The approval of the steep approach is based on:					
☐ AFM	☐ AFM Supplement	☐ Type certification data sheet	☐ Supplemental Type Certificate	☐ Other (specify):	
2.2	Maximum approved glideslope angle as per item 2.1:				

Minimum Equipment List			*To be completed by applicant*
2.3	The applicant should revise parts of Minimum Equipment List to reflect system requirements (e.g. configuration, airbrakes, flaps, TAWS override procedure) appropriate to the intended steep approach operations? **Minimum Equipment List revised?**	YES ☐	NO ☐

3. OPERATION

Operating Practices and Procedures		*To be completed by applicant*
The applicant must institute steep approach Operating Practices and Procedures. These practices and procedures should cover the following subjects:		Steep approach Operating Practices and Procedures are described in (list manual reference, chapter and sub-chapter):
3.1	**Operational Control and Supervision** CAT.POL.A.245(2)(iii)(E) CAT.POL.A.345(2)(iii)(E) (OM-A 2.3) The operator shall establish a control loop to verify that at least the Commander assigned to the flight is trained and proficient to conduct the intended steep approach. This verification shall be done in the planning phase in the context of operational control and supervision CAT.POL.A.245(2) CAT.POL.A.345(2) (OM-A 2.3) Any Steep Approach limitations shall be considered in the planning, when operation into an aerodrome with Steep Approach is intended. This feasibility-check shall be done in the context of operational control and Supervision.	
3.2	**General description of Steep Approach** CAT.POL.A.245 CAT.POL.A.345 (OM-A 8) General definitions and characteristics shall be described in the Chapter 8. The description shall mention the definition of a steep approach (an approach with a glide slope angle of 4,5° or more is considered a Steep Approach) The required type of vertical path reference and runway guidance used for the steep approach, must be mentioned. The difference in screen height (less than 50ft but not less than 35ft) and the resulting operational consequences have to be mentioned. (OM-B 0.) Steep Approach with its maximum approach angle shall be mentioned in the list of operations specifications.	
3.3	**Limitations** CAT.POL.A.245(2)(iii)(F) CAT.POL.A.345(2)(iii)(F) (OM-B 1.1) If there is a maximum landing mass, other than the maximum landing mass for normal approach angle, it must be listed. The maximum tailwind allowed for Steep Approach must be mentioned. The maximum x-wind allowed for Steep Approach must be mentioned. The maximum approach angle the aeroplane is certified for and the operator is authorised to conduct, must be mentioned. Required automation and its minimum use heights (EXAMPLE: A/P and A/T might be used down to 200ft AAL etc.). CAT.POL.A.245(2)(iii)(D) CAT.POL.A.345(2)(iii)(D) (OM-B 1.1) All technical limitations must be mentioned. For example: Powerplant limitations (EXAMPLE: OEI, FADEC, minimum N1 etc), required navigation equipment, required configuration (EXAMPLE: Flaps, slats, airbrake etc). Aerodrome/runway limitations must be listed (e.g. max slope, max aerodrome elevation, minimum runway width etc).	

3.4	**Normal Procedures** CAT.POL.A.245(2)(iii)(F) CAT.POL.A.345(2)(iii)(F) (OM-B 2) All normal procedures shall be consistently described including flight profile and crew station duty assignments. The procedures and manipulations may vary from normal approach procedures. The OM-B Chapter 2 shall contain the description of these procedures and manipulations. - If the briefing for a steep approach is different to the conventional approach, the differences shall be described in this chapter - Describe if specific tasks have to be completed before the approach (e.g. arming of steep approach mode, verification of serviceability of equipment etc) - The description must include configurations, speeds, call-outs, tasks in relation to the flight/approach progress. If the operator decides to implement additional call-outs for steep approach(e.g. speed call- out during short final), it shall be defined in this chapter - The procedures shall also describe techniques used for the attitude change during flare following a Steep Approach - The use of automatics during the approach and maybe landing, shall be described - If a different speed schedule for the Steep Approach is required, it shall be described, how the crewmember obtains these figures - If the landing configuration for a Steep Approach is different to a normal approach, a detailed description must be available - The missed approach procedure must be described in detail (including configuration, speed, call-out, flight modes etc).	
3.5	**Abnormal Procedures** CAT.POL.A.245(2)(iii)(F) CAT.POL.A.345(2)(iii)(F) (OM-B 3) All abnormal procedures concerning Steep Approach must be described. The description shall contain procedures to be applied in case of failures during Steep Approach (EXAMPLE: OEI, configuration failures etc). If not defined as procedures by the manufacturer, the operator can describe additional, more restrictive contingency procedures in this chapter (EXAMPLE:. The manufacturer allows to conduct Steep Approach with FADEC inop. The operator requires to conduct a G/A for a FADEC fault during approach, due to the difficult engine handling during Approach)	
3.6	**Performance** CAT.POL.A.245(2)(iii)(F) CAT.POL.A.345(2)(iii)(F) (OM-B 4) Due to the Steep Approach angle and the reduced screen height, a different speed schedule might be certified by the aeroplane manufacturer. This might result in a different calculation or increment for the landing distance (LD) and consequently for the determination of landing distance required (LDR) The manufacturer provided documents will give information to this topic. The operator must ensure to implement this information in the OM-B Chapter 4. The information shall be presented in a way that the crew members can easily calculate the required performance data for landing. If there is a different calculation method, or if different figures are used, the operator must proof the correct application.	

	Special attention must be given to calculations with electronic applications or calculation programs from external suppliers (e.g. EFB applications) In case of a landing distance (LD) penalty due to overspeed, the crewmember must have an easy-to-use method to determine the resulting penalty (e.g. 7% increase of LD per 2kts speed increment) If for Steep Approach a special landing configuration is used, the configuration change and missed approach configuration may be different than on a normal approach and therefore considered in the approach climb calculation, provided by the manufacturer.	
3.7	**Mass and Balance** CAT.POL.A.245(2)(iii)(F) CAT.POL.A.345(2)(iii)(F) (OM-B 6) If the aeroplane has a landing mass limitation other than the maximum landing mass for normal approaches, it must be considered for the calculation of the load sheet. Special attention to this has to be given, if the load sheet is calculated electronically (e.g. EFB application). Exceedance of a landing mass limitation must be excluded / indicated.	
3.8	**Minimum Equipment List** CAT.POL.A.245(2)(iii)(D) CAT.POL.A.345(2)(iii)(D) (OM-B 9) The MEL must be revised with all considerations concerning the required equipment for Steep Approach. If the operator decides to implement additional items required for Steep Approach, they must be listed in the MEL.	
3.9	**Aerodrome Instruction and Information** CAT.POL.A.245(2) CAT.POL.A.345(2) (OM-C 1) All aerodromes shall be categorised in order to allow flight crew competence qualification. The categorisation gives the operational control and the crewmember concerned the information about the required qualification in order to operate into a specific aerodrome. Aerodromes with special limitations (performance, operating procedures) must be explicitly published in the OM C. Also special considerations, additional information, aerodrome special issues defined by the operator (e.g. tips and hints) shall be published in the OM C. Following items shall be taken into consideration for each aerodrome at which Steep Approach operations are to be conducted: - a suitable glide path reference system comprising at least a visual glide path indicating system shall be available, - the obstacle situation, - the type of glide path reference and runway guidance, - the minimum visual reference to be required at decision height (DH) and MDA, - pilot qualification and special aerodrome familiarisation, - missed approach criteria - weather minima	

Flight Crew Training and Qualification		*To be completed by applicant*
The applicant is required to establish the following (covering subjects under 3.1 to 3.9):		*To be completed by applicant* Description in (list manual reference, chapter and subchapter):
3.10	**Flight crew qualification requirements** CAT.POL.A.245(2)(iii)(E) CAT.POL.A.345(2)(iii)(E) (OM-A 5)	
3.11	**Flight Crew Training** CAT.POL.A.245(2)(iii)(E) CAT.POL.A.345(2)(iii)(E) (OM-D 2.1) Description of initial and recurrent training, checking-and training-syllabi. Steep Approach shall be trained at least for the CMD. This training shall be conducted in a simulator and documented in the personal file. It is the operators responsibility to adhere to the training requirements for every single aerodrome where he intends to operate to. CCAA will only issue an approval for the Steep Approach procedure. The validity period for the route and aerodrome qualification must be observed It is the operators responsibility to observe this period of validity. The initial and recurrent training must be based on the Operator's Procedures laid down in the respective OM B. The training must emphasis on proper distribution of the flight crew station workload management, duties, responsibilities and appropriate call-outs during Steep Approach, flare, roll-out and GA / missed approach. Special emphasis shall be laid on critical phases such as flare, transition from non-visual to visual conditions and on procedures in deteriorating visibility, the handling of failures as well as detection of / response on pilot's incapacitation.	

4. APPLICATION PACKAGE

Documentation to be submitted to the CCAA		Submitted?		
		Yes	No	N/A
4.1	Compliance statement which shows how the criteria of CAT.POL.A.245 and/or CAT.POL.A.345 have been satisfied. (Section 5. of this application)	☐	☐	☐
4.2	Sections of the AFM or AFM Supplements that document steep approach airworthiness approval	☐	☐	☐
4.3	Flight crew steep approach training programmes and syllabi for initial and recurrent training	☐	☐	☐
4.4	Operation manual and checklists that include steep approach operating practices and procedures.	☐	☐	☐
4.5	Minimum Equipment List (MEL) that include items pertinent to steep approach operations	☐	☐	☐
4.6	Maintenance program or revision thereof that include items pertinent to steep approach equipment	☐	☐	☐
4.7	Steep approach maintenance practices & procedures (CAME, maintenance program, stand-alone document)	☐	☐	☐
4.8	Service Bulletin, Supplemental Type Certificate (STC) or Major Modification Approval Documentation, if approval based on documents as detailed in 2.1 above (except if based on approved type design).	☐	☐	☐

5. APPLICANT'S STATEMENT

The undersigned certifies the above information to be correct and true and that aeroplane system installation, continuing airworthiness of systems, minimum equipment for dispatch, operating procedures and flight crew training comply with applicable requirements of EC 965/2012.		
Name of Post Holder Continuing Airworthiness:	Signature:	Date:
Name of Post Holder Flight Operations:	Signature:	Date:
Name of Post Holder Training:	Signature:	Date:

Date:	
Applicant's name, surname & signature:	

6. FOR OFFICIAL USE ONLY

	Subject	Responsible	Date	Signature
6.1	FOD-FRM-012 and item 4 application package checked for completeness.	OPS		
6.2	Airworthiness Approval granted (Appendix to Certificate of Airworthiness).	AWI		
6.3	Operational Approval granted (applicant's operating practices, procedures and training programs have been found in compliance with applicable requirements)	OPS		
6.4	Steep approach approval process administratively completed (OPS Update, and Exchange of Certificates).	OPS		

Withdrawal of steep approach Approval *Reason:* *Name:*	*Date:*	*Signature:*