ANAC Autoridade Nacional da Aviação Civil Portuguese Civil Aviation Authority	**AUTORIDADE NACIONAL DA AVIAÇÃO CIVIL** **Departamento De Operações** **REQUERIMENTO SPA SET-IMC** **REGULAMENTO (UE) 965/2012**

OPERADOR: *Operator*			**COA:** *AOC*	**PT- /**
Aprovação Inicial ☐ *Initial Approval*		**Alteração** ☐ *Change*		
Âmbitos *Scopes*	☐ CAT / ☐ NCC / ☐ SPO / ☐ ORO.AOC.125			
AERONAVE *Aircrfat*	**Marca:** *Maker*:			
	Modelo: *Model*			
	Reg.(s): *Registr..*:			
	S/N (s):			
Manual de Operações, EDIÇÃO *Operations Manual , Edition/Issue*	☐ :		**REVISÃO** *Revision*	☐ :
Min. Equip. List - MEL, EDIÇÃO *Min. Equip. List - MEL Edition/Issue*	☐ :		**REVISÃO** *Revision*	☐ :
List of attached documentation to be used as reference (R):				
1. **2.** **3.** **4.** **5.** **6.**				

This form can be filled in on screen (preferred method) then printed, signed and submitted as instructed. Alternatively, print, then complete in BLOCK CAPITALS using black or dark blue ink.
The operator, mentioned below, in order to substantiate what he requires, through the ANAC DOC 218 accompanying this form, declares that he is aware that it is an offense under the Portuguese law to make, with intent to deceive, any false representation for the purpose of procuring the grant, issue, renewal or variation of any certificate, license, approval, permission or other document. This offense is punishable on summary conviction by a fine.

1. Type of Application- must be completed for any application to be processed.

a) Please confirm:	
As an Operator, is this an **'Initial'** Application	YES ☐ / NO ☐
It is an extension to existing approval and fleet.	YES ☐ / NO ☐
It is an approval extension to another fleet.	YES ☐ / NO ☐
It is an approval extension to another route/location.	YES ☐ / NO ☐
List of areas/ routes of operation:	

Filling instructions:

1. Insert in "Document Reference (R), a specific reference to ***Manual/Section/Paragraph or MODIFICATION nº xxxx,*** etc where to find evidence of the subject. Use documentation reference numbers above for simplification. If not applicable, insert N/A.

2. Separate sets of documentation shall prepared: one concerning operational requirements, another for airworthiness support and other concerning maintenance program and continued airworthiness.
3. The items "YES", "NO", "PARTIAL" are authority only.
4. If no evidences are provided within 30 days upon request, the process shall be evaluated for closure, due to missing documentation or evidences

2. Statement of Requirements

Description	Document Reference (R)	YES	NO	PARTIAL
SPA.SET-IMC.105 SET-IMC operations approval *To obtain a SET-IMC approval by the competent authority, the operator shall provide evidence that all the following conditions have been complied with:* *(a) an acceptable level of turbine engine reliability is achieved in service by the world fleet for the particular airframe-engine combination;*		☐/☐/☐		
(b) specific maintenance instructions and procedures to ensure the intended levels of continued airworthiness and reliability of the aeroplane and its propulsion system have been established and included in the operator's aircraft maintenance programme in accordance with Regulation (EU) No 1321/2014, including all of the following: *(1) an engine trend monitoring programme, except for aeroplanes first issued with an individual certificate of airworthiness after 31 December 2004 that have an automatic trend monitoring system;* *(2) a propulsion and associated systems' reliability programme;*		☐/☐/☐		
(c) flight crew composition and a training/checking programme for the flight crew members involved in these operations have been established;		☐/☐/☐		
(d) operating procedures have been established specifying all the following: *(1) the equipment to be carried, including its operating limitations and appropriate entries in the MEL;*		☐/☐/☐		
(2) the flight planning;		☐/☐/☐		
(3) the normal procedures;		☐/☐/☐		
(4) the contingency procedures, including procedures following a propulsion system failure, as well as forced landing procedures in all weather conditions;		☐/☐/☐		
(5) the monitoring and incident reporting.		☐/☐/☐		
(e) a safety risk assessment has been performed, including the determination of an acceptable risk period if an operator intends to make use of it.		☐/☐/☐		
AMC1 SPA.SET-IMC.105 SET-IMC operations approval **ANNUAL REPORT**		☐/☐/☐		

After obtaining the initial approval, the operator should make available to its competent authority on an annual basis a report related to its SET-IMC operations containing at least the following information: *(a) the number of flights operated;* *(b) the number of hours flown; and* *(c) the number of occurrences sorted by type.*		
AMC1 SPA.SET-IMC.105(a) SET-IMC operations approval **TURBINE ENGINE RELIABILITY**		☐/☐/☐
AMC1 SPA.SET-IMC.105(b) SET-IMC operations approval **MAINTENANCE PROGRAMME**		☐/☐/☐
AMC1 SPA.SET-IMC.105(c) SET-IMC operations approval **TRAINING PROGRAMME** *The operator's flight crew training and checking, established in accordance with ORO.FC, should incorporate the following elements:* *(a)* ***Conversion training.*** *Conversion training should be conducted in accordance with a syllabus devised for SET-IMC operations and include at least the following:* *(1)* ***normal procedures****:* *(i) anti-icing and de-icing systems operation;* *(ii) navigation system procedures;* *(iii) radar positioning and vectoring, when available;* *(iv) use of radio altimeter; and* *(v) use of fuel control, displays interpretation;* *(2)* ***abnormal procedures:*** *(i) anti-icing and de-icing systems failures;* *(ii) navigation system failures;* *(iii) pressurisation system failures;* *(iv) electrical system failures; and* *(v) engine-out descent in simulated IMC; and* *(3)* ***emergency procedures:*** *(i) engine failure shortly after take-off;* *(ii) fuel system failures (e.g. fuel starvation);* *(iii) engine failure other than the above: recognition of failure, symptoms, type of failure, measures to be taken, and consequences;* *(iv) depressurisation; and* *(v) engine restart procedures:* *(A) choice of an aerodrome or landing site; and* *(B) use of an area navigation system;* *(vi) air traffic controller (ATCO) communications;* *(vii) use of radar positioning and vectoring (when available);* *(viii) use of radio altimeter; and* *(ix) practice of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power.*		☐/☐/☐

(b) ***Conversion checking.*** *The following items should be checked following completion of the SET-IMC operations conversion training as part of the operator's proficiency check (OPC):* *(1) conduct of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power;* *(2) engine restart procedures;* *(3) depressurisation following engine failure; and* *(4) engine-out descent in simulated IMC.*		☐/☐/☐
(c) ***Use of simulator (conversion training and checking).*** *Where a suitable full flight simulator (FFS) or a suitable flight simulation training device (FSTD) is available, it should be used to carry out training on the items under (a) and checking of the items under (b) above for SET-IMC operations conversion training and checking.*		☐/☐/☐
(d) ***Recurrent training.*** *Recurrent training for SET-IMC operations should be included in the recurrent training required by Subpart FC (FLIGHT CREW) of Annex III (Part-ORO) to Regulation (EU) No 965/2012 for pilots carrying out SET-IMC operations. This training should include all items under (a) above.*		☐/☐/☐
(e) ***Recurrent checking.*** *The following items should be included into the list of required items to be checked following completion of SET-IMC operations recurrent training as part of the OPC:* *(1) conduct of the forced landing procedure until touchdown in simulated IMC, with zero thrust set, and operating with simulated emergency electrical power;* *(2) engine restart procedures;* *(3) depressurisation following engine failure; and* *(4) emergency descent in simulated IMC.*		☐/☐/☐
(f) ***Use of simulator (recurrent training and checking).*** *Following conversion training and checking, the next recurrent training session and the next OPCs including SET-IMC operations items should be conducted in a suitable FFS or FSTD, where available.*		☐/☐/☐
AMC2 SPA.SET-IMC.105(c) SET-IMC operations approval **CREW COMPOSITION** *(a) Unless the pilot-in-command has a minimum experience of 100 flight hours under instrument flight rules (IFR) with the relevant type or class of aeroplane including line flying under supervision (LIFUS), the minimum crew should be composed of two pilots.* *(b) A lesser number of flight hours under IFR on the relevant type or class of aeroplane may be acceptable to the competent authority when the flight crew member has significant previous IFR experience.*		☐/☐/☐
AMC1 SPA.SET-IMC.105(d)(2) SET-IMC operations approval **FLIGHT PLANNING**		☐/☐/☐

(a) The operator should establish flight planning procedures to ensure that the routes and cruising altitudes are selected so as to have a landing site within gliding range.		
(b) Notwithstanding (a) above, whenever a landing site is not within gliding range, one or more risk periods may be used for the following operations: *(1) over water;* *(2) over hostile environment; or* *(3) over congested areas. (…)*		☐/☐/☐
(c) The operator should establish criteria for the assessment of each new route. These criteria should address the following: *(1) the selection of aerodromes along the route;* *(…)*		☐/☐/☐
(d) At the flight planning phase, any selected landing site should have been assessed by the operator as acceptable for carrying out a safe forced landing with a reasonable expectation of no injuries to persons in the aeroplane or on the ground. All information reasonably practical to acquire should be used by the operator to establish the characteristics of landing sites.		☐/☐/☐
(e) Landing sites suitable for a diversion or forced landing should be programmed into the navigation system so that track and distance to the landing sites are immediately and continuously available. None of these preprogrammed positions should be altered in-flight.		☐/☐/☐
AMC2 SPA.SET-IMC.105(d)(2) SET-IMC operations approval **ROUTE AND INSTRUMENT PROCEDURE SELECTION** *The following should be considered by the operator, as appropriate, depending on the use of a risk period:* *(a)* ***Departure*** *The operator should ensure, to the extent possible, that the instrument departure procedures to be followed are those guaranteeing that the flight path allows, in the event of power loss, the aeroplane to land on a landing site.* *(b)* ***Arrival.*** *The operator should ensure, to the extent possible, that the arrival procedures to be followed are those guaranteeing that the flight path allows, in the event of power loss, the aeroplane to land on a landing site.* *(c)* ***En route.*** *The operator should ensure that any planned or diversionary route should be selected and be flown at an altitude such that, in the event of power loss, the pilot is able to make a safe landing on a landing site.*		☐/☐/☐
AMC3 SPA.SET-IMC.105(d)(2) SET-IMC operations approval **LANDING SITE** *A landing site is an aerodrome or an area where a safe forced landing can be performed by day or by night, taking into account the expected weather conditions at the time of the foreseen landing.* *(a) The landing site should allow the aeroplane to completely stop within the available area, taking into account the slope and the type of the surface.*		☐/☐/☐

(b) The slope of the landing site should be assessed by the operator in order to determine its acceptability and possible landing directions. *(c) Both ends of the landing area, or only the zone in front of the landing area for one-way landing areas, should be clear of any obstacle which may be a hazard during the landing phase.*		
SPA.SET-IMC.110 Equipment requirements for SET-IMC operations *Aeroplanes used for SET-IMC operations shall be equipped with all the following equipment:* *(a)* ***two separate electrical generating systems****, each one capable of supplying adequate power to all essential flight instruments, navigation systems and aeroplane systems required for continued flight to the destination or alternate aerodrome;* *(b)* ***two attitude indicators****, powered from independent sources;* *(c) for* ***passenger*** *operations, a* ***shoulder harness or a safety belt with a diagonal shoulder strap for each passenger seat****;* *(d)* ***airborne weather-detecting*** *equipment;* *(e) in a pressurised aeroplane,* ***sufficient supplemental oxygen*** *for all occupants to allow descent, following engine failure at the maximum certificated cruising altitude, at the best range gliding speed and in the best gliding configuration, assuming the maximum cabin leak rate, until sustained cabin altitudes below 13 000 ft are reached;* *(f)* ***an area navigation system*** *capable of being programmed with the positions of landing sites and providing lateral guidance to the flight crew to reach those sites;* *(g)* ***a radio altimeter****;* *(h)* ***a landing light****, capable of illuminating the touchdown point on the power-off glide path from 200 ft away;* *(i)* ***an emergency electrical supply system*** *of sufficient capacity and endurance capable of providing power, following the failure of all generated power, to additional loads necessary for all of the following:* *(1) the essential flight and area navigation instruments during descent from maximum operating altitude after engine failure;* *(2) the means to provide for one attempt to restart the engine;* *(3) if appropriate, the extension of landing gear and flaps;* *(4) the use of the radio altimeter throughout the landing approach;* *(5) the landing light;* *(6) one pitot heater;* *(7) if installed, the electrical means to give sufficient protection against impairment of the pilot's vision for landing;* *(j)* ***an ignition system that activates automatically****, or is capable of being operated manually, for take-off, landing, and during flight, in visible moisture;*		☐/☐/☐

*(k) a means of **continuously monitoring the power train lubrication** system to detect the presence of debris associated with the imminent failure of a drivetrain component, including a flight crew compartment caution indication;* *(l) an **emergency engine power control device** that permits continuing operation of the engine at a sufficient power range to safely complete the flight in the event of any reasonably probable failure of the fuel control unit.*		
AMC1 SPA.SET-IMC.110(b) Equipment requirements for SET-IMC operations **ATTITUDE INDICATORS**		☐/☐/☐
AMC1 SPA.SET-IMC.110(d) Equipment requirements for SET-IMC operations **AIRBORNE WEATHER-DETECTING EQUIPMENT**		☐/☐/☐
AMC1 SPA.SET-IMC.110(f) Equipment requirements for SET-IMC operations **AREA NAVIGATION SYSTEM**		☐/☐/☐

3. Technical Declaration

I hereby declare that to the best of my knowledge the particulars entered on this application are accurate and a true statement of all the aircraft on this maintenance programme and compliant with the terms and conditions of the Basic Regulation (EU) No 2018/1139, including its Implementing Rules, as amended.
I further declare that I hold all the necessary aircraft data and airworthiness records to enable confirmation that the aircraft is SPA. SET-IMC compliant.
I understand that the ANAC may conduct sample checks upon aircraft, the location of the maintenance and aircraft records.

Name of person holding technical responsibility: _____

Person holding technical responsibility: **Operator AIRWORTHINESS MANAGER**
Signature of Airworthiness Manager (person technically responsible):

_____

I hereby declare that to the best of my knowledge, the particulars entered on this application related to "<u>Flight Operations Elements</u>" are accurate and compliant with the terms and conditions of the Basic Regulation (EU) No 2018/1139, including its Implementing Rules, as amended.

Name of person holding Flight Operations responsibility as FOM: _____

_____

Signature of FOM (person holding Flight Operations responsibility):

_____

Date: _____

4. Summary. (ANAC ONLY)

(a) O Manual de Operações inclui informação adequada para os seguintes pontos:	YES ☐ / NO ☐ / NA ☐
(1) Composição da tripulação de voo.	YES ☐ / NO ☐ / NA ☐
(2) Programa de formação/avaliação dos membros da tripulação de voo.	YES ☐ / NO ☐ / NA ☐
(3) Equipamento a transportar.	YES ☐ / NO ☐ / NA ☐
(4) Procedimentos operacionais e de planeamento dos voos.	YES ☐ / NO ☐ / NA ☐
(5) Informação sobre rotas e procedimentos de instrumentos a selecionar	YES ☐ / NO ☐ / NA ☐
(6) Descrição dos *Landing sites* em rota	YES ☐ / NO ☐ / NA ☐
(7) Procedimentos de apoio aos passageiros no solo em caso de emergência.	YES ☐ / NO ☐ / NA ☐
(8) Os procedimentos normais.	YES ☐ / NO ☐ / NA ☐
(9) Os procedimentos de emergência.	YES ☐ / NO ☐ / NA ☐
(10) A monitorização e a comunicação de incidentes.	YES ☐ / NO ☐ / NA ☐
(11) O reporte anual da atividade efetuada.	YES ☐ / NO ☐ / NA ☐
(b) Foi apresentado um *safety assessment* que inclui:	YES ☐ / NO ☐ / NA ☐
(1) Listagem dos perigos específicos para a rota e ambientes de operação.	YES ☐ / NO ☐ / NA ☐
(2) Mitigações e controlos adequados.	YES ☐ / NO ☐ / NA ☐
(3) Revisão periódica.	YES ☐ / NO ☐ / NA ☐
(c) Existe uma MEL aprovada e com procedimentos adequados:	YES ☐ / NO ☐ / NA ☐
(1) Inclui entradas para todos os equipamento obrigatórios a bordo.	YES ☐ / NO ☐ / NA ☐
(2) Inclui instruções relativas ao sistema de monitorização do sistema de lubrificação do sistema motor?	YES ☐ / NO ☐ / NA ☐
(d) Validação da capacidade operacional (**AMC4 ARO.OPS.200**)	YES ☐ / NO ☐ / NA ☐
(1) Efetuada demonstração simulando a operação requerida de forma satisfatória	YES ☐ / NO ☐ / NA ☐
(2) Inclui falha total de do sistema de propulsão (simulado).	YES ☐ / NO ☐ / NA ☐
(3) Incluiu falha total (simulada) da geração elétrica normal.	YES ☐ / NO ☐ / NA ☐
(4) Simulação de redução de capacidade visual (IMC simulado)	YES ☐ / NO ☐ / NA ☐
(5) Conduzida em condições VMC.	YES ☐ / NO ☐ / NA ☐
(6) Simulação de tocar e andar no caso de falha de propulsão.	YES ☐ / NO ☐ / NA ☐
(e) Existe parecer AER respeitante a:	YES ☐ / NO ☐ / NA ☐
(1) A aeronave é elegível para SET-IMC.	YES ☐ / NO ☐ / NA ☐
(2) Equipamentos a bordo conforme SPA.SET-IMC em acréscimo de outros, respeitante a CAT.IDE.A..	YES ☐ / NO ☐ / NA ☐

(3) Um nível aceitável de fiabilidade do motor de turbina em serviço para o conjunto célula/motor.	YES ☐ / NO ☐ / NA ☐
(f) Existe parecer MNP respeitante a:	YES ☐ / NO ☐ / NA ☐
(1) Procedimentos de manutenção específicos, que foram incluídos no programa de manutenção das aeronaves do operador.	YES ☐ / NO ☐ / NA ☐
(2) Um programa de monitorização do comportamento do motor.	YES ☐ / NO ☐ / NA ☐
(3) Um programa de fiabilidade do sistema de propulsão e sistemas conexos.	YES ☐ / NO ☐ / NA ☐

LISTAGEM DE OUTRA DOCUMENTAÇÃO:

ESPECIFICAÇÕES OPERACIONAIS A INCLUIR NO OPS SPEC:
(incluir nas observações qualquer aprovação de procedimento específico, se aplicável)

Aprovações Específicas: *Specific Approvals:*	**Sim** *Yes*	**Não** *No*	**Especificações** *Specifications*	**Observações** *Remarks*
Operações de aviões monomotor de turbina em voos noturnos ou em IMC (SET-IMC) *Operations of single-engined turbine aeroplane at night or in IMC - SET-IMC*	☐	☐		

Outras:

Relatório:

Parecer:

APROVAR ☐ / RECUSAR ☐ / ENCERRAR, DOCUMENTAÇÃO EM FALTA ☐

O Inspetor Responsável

Data: ____/____/____ _____
(Assinatura e carimbo)

O Chefe de Departamento

Data: ____/____/____ _____
(Assinatura e carimbo)

O Diretor

Data: ____/____/____ _____
(Assinatura e carimbo)