SECTION:	AIRWORTHINESS FORM	AWF-EMS-001
TITLE:	ETOPS MAINTENANCE SUPPORT ARRANGEMENT	

The purpose of this form is to review to ensure that personnel engaged in ETOPS related work are familiar and current with the airworthiness standards associated with ETOPS.

I. Operator			
1. Operator:		3. Phone	
2. Date		4. Email	
5.AOC/ Authorisation Ref.		6. AMO Approval Ref.	

II. INSPECTION	COMMENTS:
1. Type Design ETOPS Approval:	Comments:
The operator should show that the design features of the particular airframe/ engine combination are sufficiently reliable. The time limitation shall not exceed the limitation given in the ETOPS type design approval. The following must be considered when evaluating airframe/engine combination: - Number of months/years of operational experience with airframe/engine combination for operator and world fleet. - The total number of ETOPS operations conducted with this specific airframe/engine combination for operator and world fleet. - Engine/airframe hours and cycles. - The in-flight shutdown rates for operator. - The unscheduled engine removal rate. - The mean time between failures for major components.	
3. ETOPS Maintenance Program:	Comments:
The approved maintenance schedule should be reviewed to ensure that ETOPS related items, ETOPS task, ETOPS services checks are identified.	

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4. ETOPS Manual:	Comments:
The operator should develop a manual for use by all concerned people in ETOPS. The manual should be in accordance with JAA I L20 and the following should also be in the manual: - Maintenance program. - Reliability program. - Propulsion system program. - Engine condition monitoring. - Oil consumption monitoring. - ETOPS parts control. - Maintenance training. - Rectification of aircraft/engine defects.	
5. Reliability Program:	**Comments:**
A reliability program should be developed to identify ETOPS related problems and most importantly ETOPS alert levels. This should be available to GCAA and events must be reported to GCAA within 72 hours.	
6. Propulsion System Monitoring:	**Comments:**
The operator's assessment of propulsion systems reliability should be made available to GCAA on monthly basis and any adverse trends should be immediately identified and corrective action must be taken in consultation with GCAA.	
7. Engine Condition Monitoring (ECM):	**Comments:**
ECM should detect engine deterioration to allow corrective action to be taken before the engine safe operation is affected. It is recommended to check the following are monitored and trended by the operator: - Magnetic Chip Detectors (MCD) - EGT, FF, N1, N2, N3, Vibration and other selected parameters. - Margin control in case of additional demands that are made during diversion. - Engine.	

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8. Oil Consumption Monitoring:	**Comments:**
Oil consumption program should be based on the manufacturer's recommendation and must be continuous. If the APU is required for ETOPS then it must be included.	
9. Engine Condition Monitoring:	**Comments:**
- The ECM program should be developed and used to detect any engine deterioration at any early stage as well as initiating inspection of components or modules to allow for corrective action before safe operation is affected. - The operator should produce a monthly report to GCAA.	
10. Engine Oil Consumption:	**Comments:**
The operator should develop an engine and an APU oil consumption program and should reflect the manufacturer's recommendation. Limits of consumptions must be established.	
11. Maintenance Training:	**Comments:**
Should include on the job training. ETOPS training procedure and ETOPS authorisation. It should focus on extended range awareness for all personnel involved in ETOPS as well as the special nature of extended range maintenance requirements.	
12. ETOPS Parts Control:	**Comments:**
The operator should develop a procedure or methods of verification of proper parts and control procedures during parts pooling and borrowing.	
13. Rectification of Aircraft/Engine Defects:	**Comments:**
The operator should develop a procedure for taking corrective action in case of engine shutdown, system failure, and adverse trends. The procedure should also identify who is responsible for determining the necessary action.	

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14. Minimum Equipment List (MEL):	**Comments:**
The operator's approved MEL must identify primary system redundancy level commensurate with ETOPS and ETOPS restrictions should be visible under the remark column.	
15. Manufacturer Information:	**Comments:**
The operator should develop a procedure to control manufacture maintenance documents, service bulletins. Modifications which are designed by organisation other than the manufacture should be assessed for their impact on ETOPS.	
16. Maintenance or Multiple Essential Systems:	**Comments:**
- Maintenance on multiple essential systems should be segregated to prevent maintenance errors. - Where the above is not practical then separate work team must assigned to carry out the task.	
17. Operator's Surveillance Program:	**Comments:**
The operator should have a surveillance program specifically for ETOPS. The program must ensure continued integrity of the ETOPS maintenance programs while allowing for adjustment as required.	
18. Reliability Program:	**Comments:**
Reliability program should be developed and should identify ETOPS related problems. Information should be available to GCAA on at least monthly basis and events reported within 72 hours. The program should address topics as indicated in the JAA IL 20.	
19. Propulsion System Monitoring :	**Comments:**
The operator's assessment of propulsion systems reliability should be made available to GCAA at least on monthly basis. Adverse trends should be immediately identified and appropriate action taken in consultation with GCAA.	

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20. Line Support Arrangements:	**Comments:**
The operator's must have adequate resources for line support. Where third parties provide line support overseas the agreements should be reviewed together with other arrangements such as training and authorisation.	
21. Quality Control/Assurance:	**Comments:**
The operator should address the following: - ETOPS audit procedure. - Engineer authorisation control. - Third party monitoring. - Line support monitoring.	
22. Aircraft Surveys:	**Comments:**
ETOPS departure should be observed to ensure that operator's procedures are being following as well as checking other normal survey subject.	

III. Recommendation

With respect to the subject/ activities recorded above in this report,
☐ approval/ ☐continuation of the approval is ☐ recommended / ☐ is not recommended.

a. Diversion Time		Other Remarks:
b. Range (Nm)		

Fill a & b above ***Only*** if different than Time and Range as Flight Operations value which is describes in or will be describes in AOC operations Specifications

Airworthiness Inspector: **Chief Airworthiness:**

Signature: **Signature:**

Note: Recommendation should include the diversion time or limitations.