Sivil Havacılık Genel Müdürlüğünden:

#### TEMEL ASGARİ TEÇHİZAT LİSTESİ (MMEL) İLE ASGARİ TEÇHİZAT LİSTESİ (MEL) HAZIRLANMASI VE ONAYLANMASINA İLİŞKİN USUL VE ESASLAR TALİMATI

#### (SHT MMEL/MEL)

#### REV. 01

#### **BİRİNCİ BÖLÜM**

#### Amaç, Kapsam, Dayanak ve Tanımlar

#### Amaç

**MADDE 1 –** (1) Bu Talimatın amacı, imalatçı tarafından hazırlanan ve imalatçı ülke sivil havacılık otoriteleri tarafından onaylanan Temel Asgari Teçhizat Listelerinin (MMEL) hazırlanması ile bu listeleri referans alarak işletme Asgari Teçhizat Listelerinin (MEL) hazırlanarak Genel Müdürlüğe onaylatılması ve kullanılmasına ilişkin usul ve esasları belirlemektir.

#### Kapsam

**MADDE 2 –** (1) Bu Talimat, onaylı üretim kuruluşları ile 14/10/1983 tarihli ve 2920 Sayılı Türk Sivil Havacılık Kanununa göre işletme ruhsatı verilen işletmeleri, işletmelerin filolarında bulunan Türk Sivil Hava Aracı Siciline kayıtlı hava araçlarını, geçici sürelerle ICAO 83 bis kapsamında kullanılan yabancı tescilli hava araçları ile işletmelerde görevli personel ile bakım kuruluşlarını kapsar.

#### Dayanak

**MADDE 3** – (1) Bu Talimat, 14/10/1983 tarihli ve 2920 sayılı Türk Sivil Havacılık Kanunu ve 10/11/2005 tarihli ve 5431 sayılı Sivil Havacılık Genel Müdürlüğü Teşkilat ve Görevleri Hakkında Kanuna dayanılarak hazırlanmıştır.

#### Tanımlar

**MADDE 4 –** (1) Bu Talimatta geçen;

a) AMM: Uçak bakım dokümanını

b) ETOPS: Çift Motorlu Uçaklarla Gerçekleştirilen Uzatılmış Menzil Operasyonlarını,

c) Ferry uçuş: Bir hava aracının ticari amaçla yolcu ve yük taşımaksızın,

1) Bakımı yapılmak üzere hasarlı havaaracını bakım merkezine ulaştırmak için yapılacak uçuşu,

2) Türk Sivil Havaaracı Siciline alınmak üzere yurda getirilen geçici tescilli havaaracının yapacağı uçuşu,

3) Havaaracının tehlike arz eden bölgelerden uzaklaştırılması için yapılacak uçuşu,

4) Havaaracının depolama yapılacak yere yapacağı uçuşu,

d) Galley: Havaaracı mutfağını,

e) Genel Müdür: Sivil Havacılık Genel Müdürünü,

f) Genel Müdürlük: Sivil Havacılık Genel Müdürlüğünü,

g) Hava aracı: Havalanabilen ve havada seyredebilme kabiliyetine sahip, azami kalkış ağırlığı 750 kg.'nin üzerindeki her türlü döner veya sabit kanata sahip hava aracını,

ğ) ICAO: Uluslararası Sivil Havacılık Örgütünü,

h) İşletmeci: 14/10/1983 tarihli ve 2920 sayılı Türk Sivil Havacılık Kanunu ve 10/11/2005 tarihli ve 5431 sayılı Sivil Havacılık Genel Müdürlüğü Teşkilat ve Görevleri Hakkında Kanuna istinaden işletme ruhsatı alan işletmeleri,

ı) Kullanım Dışı (inoperative): Bir sistem, komponent yâda teçhizatın kullanım amacını yerine getiremeyecek düzeyde işlev bozukluğu göstermesini, gayri faal olmasını,

i) LVO: Düşük görüş operasyonlarını,

j) MEL: Bir hava aracının sınırları belirlenmiş şartlar dahilinde belirli gayrifaal teçhizatla işletilebilmesine olanak sağlamak için söz konusu hava aracının tipine özgü MMEL esas alınarak, MMEL ile uyumlu yada MMEL'den daha kısıtlayıcı bir şekilde hava aracının işletmecisi tarafından hazırlanan işletmeci ülke sivil havacılık otoritesi tarafından onaylanan asgari teçhizat listesini,

k) MMEL: Belirli bir hava aracı tipi için ilgili hava aracının üreticisi tarafından hazırlanarak üretici ülkenin onayına sunulan ve uçuşa başlangıç aşamasında gayrifaal olmasına izin verilen bir yada birden çok teçhizatı kapsayan temel asgari teçhizat listesini,

I) MNPS: Kuzey Atlantik Asgari Seyrüsefer Performans Spesifikasyonlarını,

m) Onaylı üretim kuruluşu: Sivil hava taşımacılığı yapan yerli ve yabancı hava taşıma işletmelerinin filosunda bulunan veya bulunacak olan her türlü sivil hava aracı tasarım ve üretimini yapmak üzere Genel Müdürlük tarafından yetkilendirilmiş kuruluşları,

n) RIE: Onarım süresinin uzatılmasını,

o) RNAV: Saha seyrüseferini,

ö) RVSM: Azaltılmış dikey ayırma minimumlarında operasyon,

p) UTC: Koordine edilmiş evrensel zamanı,

ifade eder.

#### İKİNCİ BÖLÜM

#### Temel Asgari Teçhizat Listesi (MMEL)

#### Genel

**MADDE 5 –** (1) MMEL, kabul edilebilir emniyet standardını veya eşdeğer gereksinimi sağlayacak şekilde, belirli şartlar sağlamak kaydıyla geçici olarak kullanım dışı olabilen teçhizatın listesini içeren belgedir. Her bir MMEL belirli bir uçak tipine özel olarak yayınlanır.

(2) Uçuşa elverişlilikle ilgili olan ve MMEL'de yer almayan uçak sistem veya teçhizatının çalışır durumda ve faal olması gereklidir.

(3) Galley ve yolcu konforuna ilişkin olanlar gibi uçuş emniyetini doğrudan etkilemeyen teçhizatların MMEL'de yer alması gerekmez. Konu ile ilgili detaylı açıklamalar bu Talimatın Ek-1'inde yer almaktadır.

#### Temel asgari teçhizat listesinde (MMEL) operasyon tipleri

**MADDE 6 –** (1) Hava aracı tip sertifikasında yer alan operasyon tipleri mutlaka MMEL'de belirtilmelidir.

#### Temel asgari teçhizat listesinin (MMEL) hazırlanması

MADDE 7 – (1) MMEL veya MMEL Ekleri Tip Sertifikası sahibi tarafından yayınlanır.

(2) MMEL veya MMEL Ekleri ile ilgili değişiklikler Tip Sertifikası Sahibi veya Ek Tip Sertifikası sahibi tarafından yayınlanır.

(3) MMEL'in ilk kabulü ile ilgili başvuru Tip Sertifikası Sahibi tarafından yapılır.

(4) Mevcut bir MMEL'e yönelik değişikliklerin kabulü ile ilgili başvurular Tip Sertifikası Sahibi veya Ek Tip Sertifikası Sahibi tarafından yapılır.

#### Temel asgari teçhizat listesinin (MMEL) formatı ve dili

**MADDE 8 –** (1) MMEL önsöz, tanımlar ve listenin kapsamı, boyutu ve amacıyla ilgili açıklayıcı notları içerecek şekilde bu Talimatın Ek-2'sinde belirtilen kurallara uygun olarak hazırlanır.

(2) MMEL Genel Müdürlüğün uygun gördüğü dilde hazırlanır.

#### Temel asgari teçhizat listesinde (MMEL) çoklu hizmet verememe durumları

**MADDE 9 –** (1) MMEL'de çoklu hizmet verememe durumları göz önünde bulundurulur. Konu ile ilgili detaylı açıklamalar bu Talimatın Ek-3'ünde yer almaktadır.

#### Temel asgari teçhizat listesinde (MMEL) işletme ve bakım prosedürleri

**MADDE 10 –** (1) İşletme ve bakım prosedürleri bazı MMEL maddelerini desteklemek için gereklidir. Bu prosedürler Tip Sertifikası Sahibi veya Ek Tip Sertifikası Sahibi tarafından çıkarılır ve yayınlanır. Prosedürler MMEL revize edildiğinde uygun şekilde güncellenir.

(2) Bu prosedürlerin amacı MMEL geliştirme sürecinde belirlenir. Ancak, prosedürlerin kendisi onaya tabii değildir.

(3) Bu prosedürlere MMEL içinde referans verilir veya MMEL ile birlikte yayınlanır.

#### Temel asgari teçhizat listesinde (MMEL) Onarım Süreleri

**MADDE 11 –** (1) MMEL' de A, B, C ve D şeklinde Onarım Süreleri tanımlanır. Konu ile ilgili detaylı açıklamalar bu Talimatın Ek-4'ünde yer almaktadır.

(2) Her bir gayrifaal teçhizatın kategorisi aşağıda belirtilen koşullara göre belirlenir:

a) Kategori A:

1) Herhangi bir onarım süresi belirtilmemiştir, ancak bu kategoride bulunan teçhizat MMEL' de belirtilen şartlar kapsamında düzeltilir.

2) Takvim günü olarak süre verildiği durumlarda bu süre arızanın kaydedildiği günü takip eden takvim gününde UTC saat 00:01'de başlar.

b) Kategori B: Bu kategoride bulunan teçhizat arızanın kaydedildiği gün hariç ardışık 3 (üç) takvim günü içinde düzeltilir.

c) Kategori C: Bu kategoride bulunan teçhizat arızanın kaydedildiği gün hariç ardışık 10 (on) takvim günü içinde düzeltilir.

ç) Kategori D: Bu kategoride bulunan teçhizat arızanın kaydedildiği gün hariç ardışık 120 (yüz yirmi) takvim günü içinde düzeltilir.

(3) Uçakta takılı fakat işletmeci tarafından işletim için gerekli görülmeyen tesis edilmiş teçhizat mevcut olabilir ve işletmeci bu teçhizat onarılması/düzeltilmesi işlemini süresiz olarak uzatma talebinde bulunması durumunda hava aracının modifiye edilmesi ve sistemin onaylanmış modifikasyon prosedürüne uygun olarak devre dışı bırakılması veya sökülmesi işlemi yapılabilir.

#### Temel asgari teçhizat listesi (MMEL) kabulü

**MADDE 12 –** (1) Yeni MMEL'ler ve mevcut MMEL'lere yapılan düzeltmeler bu Talimat uyarınca kabul edilir.

#### Temel asgari teçhizat listesi (MMEL) revizyonları

**MADDE 13 –** (1) MMEL ve MMEL Ekleri revizyonları yayınlandığında Tip Sertifikası veya Ek Tip Sertifikası sahibi söz konusu uçağı işleten tüm işletmelere MMEL revizyonunu duyurur.

### ÜÇÜNCÜ BÖLÜM

#### Asgari Teçhizat Listesi (MEL)

#### Genel

**MADDE 14 –** (1) MEL uçuştan önce, belirli şartlara bağlı ve geçici olarak gayri faal durumda olmasına izin verilen havaaracı teçhizatının listelendiği dokümandır. MEL işletmeci

tarafından kendi filosundaki havaaraçlarının konfigürasyonu ve buna uygun işletme ve bakım şartları göz önüne alınarak Genel Müdürlük tarafından uygun görülen şekilde hazırlanır.

(2) Uçuşa elverişliliği ilgilendiren ve MEL'de listelenmeyen havaaracı sistem veya teçhizatının çalışır durumda ve faal olması gereklidir.

(3) Galley ve yolcu konforuna ilişkin olanlar gibi uçuş emniyetini doğrudan etkilemeyen teçhizatların MMEL'de yer alması gerekmez. İşletmeciler listede olmayan arızaların uçuşa elverişlilik ve emniyetli operasyonu etkileyip etkilemediğinin belirlenmesi için etkin bir değerlendirme ve karar verme süreci oluşturur.

(4) MEL, ilave açıklamalar ve değiştirilmiş operasyon ve bakım prosedürleri ile ek açıklamalar içermelidir.

#### Asgari teçhizat listesinde (MEL) operasyon tipleri

**MADDE 15 –** (1) Genel Müdürlüğün mutabakatı ile MEL işletmeci tarafından yürütülen uçuş ekibi eğitimi, pozisyon uçuşları, gösteri uçuşları vb. belirli operasyon tipleri ile ilgili özel şartları içerebilir.

(2) İşletme şartlarında yer alan RVSM, RNAV, ETOPS, MNPS, LVO vb. özel yetkiler için gerekli şartlar MEL'e dâhil edilir.

#### Asgari teçhizat listesi (MEL) hazırlama

**MADDE 16 –** (1) MEL, önsöz ve tanımlar dahil olmak üzere varsa Genel Müdürlük tarafından kabul edilen ilgili MMEL'e dayalı ve en az onun kadar kısıtlayıcı olmalıdır.

(2) İşletmeci MEL hazırlanırken hava aracı imalatçısının Sivil Havacılık Otoritesi tarafından onaylanan MMEL'i kullanır. Bu mevcut değilse ilgili mevzuat hükümleri ve Genel Müdürlük görüşlerine uygun olarak MEL hazırlanır.

(3) MMEL'de revizyon yapıldığında; işletmeci, MMEL'in değişiklik tarihinden itibaren en fazla 90 gün içinde revize edilmiş MEL'i Genel Müdürlük onayına sunar. Genel Müdürlük onayına sunulmayan MEL'ler geçersizdir.

(4) Emniyeti ilgilendiren revizyonların uygulanması için daha kısıtlı süreler uygulanabilir.

#### Asgari teçhizat listesi (MEL) formatı

**MADDE 17 –** (1) MEL önsöz, tanımlar ve listenin kapsamı, boyutu ve amacıyla ilgili açıklayıcı notları içerecek şekilde bu Talimatın Ek-5' inde belirtilen kurallara uygun olarak hazırlanır.

(2) MEL hangi MMEL revizyonuna göre hazırlandığı bilgisini içerir.

(3) Önsözde MEL kullanan uçuş ve bakım personeli için yol gösterici bilgiler yer alır.

#### Asgari teçhizat listesinde (MEL) çoklu hizmet verememe durumları

**MADDE 18 –** (1) İşletmeci, önsöz dâhil MEL'in, çoklu hizmet verememe durumlarının etkileri konusunda MMEL'de yer alan yol gösterici bilgileri yansıtmasını sağlar.

#### Asgari teçhizat listesinde (MEL) işletme ve bakım prosedürleri

**MADDE 19 –** (1) İşletmeci, MEL'i hazırlarken MMEL'deki işletme ve bakım prosedürlerini göz önünde bulundurur. İşletmeci, MEL onay sürecinde bu prosedürleri veya MEL'lerin bakım prosedürleri içermediği durumlarda AMM referansını Genel Müdürlüğe sunar.

(2) İşletme prosedürleri, çalışmayan teçhizatla ilgili planlama ve/veya operasyon esnasında uygulanır. Normalde bu prosedürler uçuş ekibi tarafından gerçekleştirilmekle birlikte, diğer personel de bazı işlemlerin yapılması için vasıflandırılıp yetkilendirilmiş olabilir. İşi yapanın kim olduğuna bakılmaksızın tüm prosedürlerin tatmin edici şekilde yerine getirilmesi işletmenin sorumluluğundadır. Buna uygun prosedürlerin işletme el kitaplarında veya MEL'de yer alması zorunludur.

(3) Uçuşa başlamadan listelenen çalışmayan teçhizat ile ilgili bakım prosedürlerinin yerine getirilmesi zorunludur. Normal durumlarda bu prosedürler bakım personeli tarafından yerine getirilmekle birlikte, diğer personel de bazı işlemlerin yapılması için vasıflandırılıp yetkilendirilmiş olabilir. İşi yapanın kim olduğuna bakılmaksızın tüm prosedürlerin tatmin edici şekilde yerine getirilmesi işletmenin sorumluluğundadır. Buna uygun prosedürlerin işletme el kitaplarında veya MEL'de yer alması zorunludur.

(4) Prosedürler, gerekli olduklarını gösterir işaretler ve bulundukları yerlere verilen referanslar işletmenin MEL'inde bulunmalıdır.

(5) MMEL'deki ilgili işletme ve bakım prosedürleri revize edildiğinde, MEL'de uygun şekilde revize edilir. Revize edilen MEL, Genel Müdürlüğün onayına sunulur. Onaya sunulmayan MEL geçersizdir.

(6) Özellikle izin verilmediyse, çalışmayan teçhizat hava aracından sökülemez.

#### Asgari teçhizat listesinde (MEL) onarım süreleri

**MADDE 20 –** (1) İşletmeci MEL hazırlarken MMEL'de verilen onarım sürelerini göz önünde bulundurur. MEL'deki onarım süreleri MMEL'de bulunan onarım sürelerinden daha uzun olamaz. Onarım süreleri ile ilgili detaylı açıklamalar bu Talimatın Ek-4'ünde yer almaktadır.

(2) Onarım sürelerine uymak için işletmeci, çalışmayan teçhizatların takibini yapan, parça, personel, tesis ve prosedür koordinasyonunu sağlayan etkin bir onarım programı uygulamaktan sorumludur.

(3) Arızanın giderilmemesi veya onarım süresi bu Talimatın 21 inci maddesine uygun olarak uzatılmaması halinde, onarım süresi aşıldıktan sonra hava aracı işletilemez.

#### Asgari teçhizat listesinde onarım süresinin uzatılması (RIE)

**MADDE 21 –** (1) Genel Müdürlük onayına bağlı olarak aşağıdaki şartların mevcut olması halinde; işletmeci, geçerli onarım süresi B, C ve D olan teçhizatların onarım sürelerini MEL'de belirtilen aynı süre kadar uzatabilmek için bir prosedür kullanarak aşağıdaki şartların yerine getirilmesi gereklidir.

a) Süre uzatmalarının kontrolü ile ilgili görev ve sorumlulukların işletmeci tarafından tanımlanması ve Genel Müdürlük tarafından kabul edilmesi,

b) İşletmecinin ilgili onarım süresini yalnızca bir kez uzatması,

c) Her bir süre uzatımı konusunda bir ayı geçmeyecek şekilde bu Talimatın Ek-7'sinde yer alan formun doldurularak, Genel Müdürlüğe bilgi verilmesi ve

ç) Onarım işleminin ilk fırsatta gerçekleştirilmesi gereklidir.

(2) Konu ile ilgili detaylı açıklamalar bu Talimatın Ek-6'sında yer almaktadır.

#### Asgari teçhizat listesi (MEL) onayı

**MADDE 22 –** (1) Yeni hazırlanan MEL'ler ile mevcut MEL'lere yönelik revizyonlar bu Talimat uyarınca Genel Müdürlük tarafından onaylanır. Onaya sunulmayanlar geçersiz kabul edilir.

#### Asgari teçhizat listesi (MEL) kapsamı dışındaki durumlar

**MADDE 23 –** (1) Gerekli emniyet standardının sağlanması koşuluyla işletmeci tarafından Genel Müdürlüğe yazılı olarak talepte bulunulması neticesinde Genel Müdürlüğün onayına bağlı olarak, bu Talimatın 21 inci maddesi dikkate alınmadan, işletmeci bazı durumlarda MMEL kısıtlarına uymak kaydıyla MEL' den muaf tutulabilir.

### DÖRDÜNCÜ BÖLÜM

#### Son Hükümler

#### Sorumluluk

**MADDE 24 –** (1) Bu Talimatta belirtilen hükümlerin uygulamasından sırasıyla işletme sorumlu müdürü, uçuş işletmeden sorumlu yönetici personel, bakımdan sorumlu yönetici personel, bakım yönetimi biriminde çalışan tüm personel ile uçuş ekipleri ve diğer ilgili personel Genel Müdürlüğe karşı birlikte sorumludur.

#### Yürürlükten kaldırılan mevzuat

**MADDE 25 –** (1) 23/06/1995 tarihli Minimum Teçhizat Listesi (MEL) Oluşturulması ve Onaylanması ile ilgili Yöntemleri Belirleyen Kurallar Talimatı (SHT-121.300) yürürlükten kaldırılmıştır.

#### Yürürlük

**MADDE 26 –** (1) Bu Talimat, yayımlandığı tarihte yürürlüğe girer.

Yürütme

MADDE 27 – (1) Bu Talimat hükümlerini, Sivil Havacılık Genel Müdürü yürütür.

#### Uçuş emniyetini doğrudan etkilemeyen teçhizatlar

(1) Uçuş emniyetini doğrudan etkilemeyen teçhizatlarla; uçuşa elverişlilik veya operasyonel olarak gerekli olmayan teçhizat kastedilmektedir. Tesis edilen gayri faal teçhizatların uçuş emniyetini doğrudan etkilemeyen teçhizat olarak nitelendirilebilmesi için aşağıda belirtilen hususlar göz önünde bulundurulmalıdır:

a) Yer personeli, uçuş ve/veya kabin personeli ile ilgili standart işletme prosedürlerinde oluşacak zorluklar veya yavaşlama sonucu uçuş operasyonunun olumsuz etkilenmemesi,

b) Havaaracı durumunun yolcu ve/veya personeli tehlikeye sokacak kadar etkilenmemesi,

c) Havaaracı durumunun yolcu/personel ve/veya havaaracına zarara sebep olabilecek müteakip arıza ihtimalini minimize edecek şekilde yapılandırılması,

d) Oluşan durumun acil durum teçhizatı kullanımını gerektirmemesi ve acil durum prosedürlerini personel tarafından uygulanamayacak derecede etkilememesi.

#### EK – 2

#### **MMEL Formati**

(1) ATA 100 numaralandırma sistemi tercih edilmelidir.

(2) MMEL teknik sayfaları için önerilen beş sütunluk format, açıklamalar ve önsöz için örnek aşağıda yer almaktadır.

### REPUBLIC OF TURKEY MINISRTY OF TRANSPORT AND COMMUNICATION DIRECTORATE GENERAL OF CIVIL AVIATION

#### MASTER MINIMUM EQUIPMENT LIST

#### (AIRCRAFT TYPE)

#### PREAMBLE

The following is applicable for authorised certificate holders operating under Authorities Operating Requirements (SHT-OPS / EU OPS). The OPS require that all equipment installed on an aircraft in compliance with the Airworthiness Standards and the Operating Requirements must be operative. However, the Requirements also permit the use of a Minimum Equipment List (MEL) where compliance with certain equipment requirements is not necessary in the interests of safety under all operating conditions. Experience has shown that with the various levels of redundancy designed into aircraft, operation of every system or installed component may not be necessary when the remaining operative equipment can provide an acceptable level of safety.

TR DGCA Master Minimum Equipment List (MMEL) is developed by the Type Certificate Holder to improve aircraft utilisation and thereby provide more convenient and economic air transportation for the public. TR DGCA MMEL includes those items of equipment related to airworthiness and operating requirements and other items of equipment which the TR DGCA finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations; it does not contain obviously required items such as wings, flaps, and rudders.

The MMEL is the basis for development of individual operator's MELs which take into consideration the operator's particular aircraft equipment configuration and operational conditions. An operator's MEL may differ in format from the MMEL, but cannot be less restrictive than the MMEL. The individual operator's MEL, when approved permits operation of the aircraft with inoperative equipment.

Equipment not required by the operation being conducted and equipment in excess of OPS requirements are included in the MEL with appropriate conditions and limitations. The MEL must not deviate from Airworthiness Directives or any other Mandatory Requirement. It is important to remember that all equipment related to the airworthiness and the operating requirements of the aircraft not listed on the MMEL must be operative.

Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures and other restrictions as necessary are specified in the MEL to ensure that an acceptable level of safety is maintained.

The MEL is intended to permit operation with inoperative items of equipment for a period of time until rectification's can be accomplished. It is important that rectification's be accomplished at the earliest opportunity. In order to maintain an acceptable level of safety and reliability the MMEL establishes limitations on the duration of and conditions for operation with inoperative equipment. The MEL provides for release of the aircraft for flight with inoperative equipment.

When an item of equipment is discovered to be inoperative, it is reported by making an entry in the Aircraft Maintenance Record/Logbook as prescribed by OPS. The item is then either rectified or may be deferred per the MEL or other approval means acceptable to the competent Authority prior to further operation. MEL conditions and limitations do not relieve the operator from determining that the aircraft is in a condition for safe operation with items of equipment inoperative.

When these requirements are met, an Airworthiness Release, Aircraft Maintenance Record/Logbook entry, or other approved documentation is issued as prescribed by OPS. Such documentation is required prior to operation with any item of equipment inoperative.

Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. The exposure to additional failures during continued operation with inoperative systems or components must also be considered. Wherever possible account has been taken in this MMEL of multiple inoperative items. However, it is unlikely that all possible combinations of this nature have been accounted for. Therefore, when operating with multiple inoperative items, the inter-relationships between those items and the effect on aircraft operation and crew workload must be considered.

Operators are to establish a controlled and sound rectification programme including the parts, personnel, facilities, procedures and schedules to ensure timely rectification. This programme should identify the actions required for Maintenance discrepancy messages.

## WHEN USING THE MEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS AND THE CONDITIONS AND LIMITATIONS SPECIFIED IN THE MEL IS REQUIRED.

#### DEFINITIONS AND EXPLANATORY NOTES

In addition to a Preamble arranged and worded along the lines of this Specimen, the MMEL should contain, as part of the Preamble, sufficient Definitions and Explanatory Notes to provide the user (this is primarily the Operator when compiling the MEL) with a full and proper understanding of the intent and purpose of the items it contains.

While many of the Definitions used will be common to all MMELs, others will be specific to particular or individual aircraft types. Type Certificate holders should, when preparing the MMEL, ensure that all relevant Definitions are included. Likewise Explanatory Notes should be provided in sufficient detail wherever the intent and purpose of a term or phrase or abbreviation etc. is necessary or advisable.

The Type Certificate holders shall provide the following Definitions for Rectification Interval Categories in the MMELs they prepare.

#### Category A

No standard interval is specified, however, items in this category shall be rectified in accordance with the conditions stated in the Remarks or Exeptions column (5) of the MMEL.

Where a time period is specified in calendar days it shall start at 00:01 on the calendar day following the day of discovery.

#### Category B

Items in this category shall be rectified within three (3) consecutive calendar days, excluding the day of discovery.

#### Category C

Items in this category shall be rectified within ten (10) consecutive calendar days, excluding the day of discovery.

#### Category D

Items in this category shall be rectified within one hundred and twenty (120) consecutive calendar days, excluding the day of discovery.

#### MMEL

#### Definitions

1. System Definitions.

System numbers are based on the Air Transport Association (ATA) Specification and items are numbered sequentially.

a. "Item" (Column 1) means the equipment, system, component, or function listed in the "Item" column. Repair interval categories (A, B, C, and D) are listed on right side of column 1. Repair intervals are described in definition 22.

b. "Number Installed" (Column 2) is the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration considered in developing this MMEL. Should the number be a variable (e.g., passenger cabin items) a number is not required.

c. "Number Required for Dispatch" (Column 3) is the minimum number (quantity) of items required for operation provided the conditions specified in Column 4 are met.

NOTE: Where the MMEL shows a variable number required for dispatch, the MEL must reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator.

d. "Remarks or Exceptions" (Column 4) in this column includes a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation, and appropriate notes.

e. A vertical bar (change bar) in the margin indicates a change, addition or deletion in the adjacent text for the current revision of that page only. The change bar is dropped at the next MMEL revision.

2. "Airplane/Rotorcraft Flight Manual" (AFM/RFM) is the document required for type certification and approved by the responsible FAA Aircraft Certification Office. The FAA approved AFM/RFM for the specific aircraft is listed on the applicable Type Certificate Data Sheet.

3. "As required by FAR" means that the listed item is subject to certain provisions (restrictive or permissive) expressed in the Federal Aviation Regulations operating rules. The number of items required by the FAR must be operative. When the listed item is not required by FAR it may be inoperative for time specified by repair category. The term "14 CFR" may be substituted for "FAR" in MMELs or operator MELs.

NOTE: For MEL development, Appendix A may be used to identify the applicable CFRs for MMEL items that use terms such as "As required by FAR or "Any in excess of those required by FAR may be inoperative". Appendix A is a non-inclusive list of CFRs.

4. Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the equipment condition.

NOTE: To the extent practical, placards should be located adjacent to the control or indicator for the item affected; however, unless otherwise specified, placard wording and location will be determined by the operator.

5. "-" symbol in Column 2 and/or Column 3 indicates a variable number (quantity) of the item installed.

6. "Deleted" in the remarks column after a sequence item indicates that the item was previously listed but is now required to be operative if installed in the aircraft.

7. As used in MMELs, "ER" refers to Extended Operations (ETOPS) of an airplane with operational approval to conduct ETOPS in accordance with the applicable regulations .

8. "Federal Aviation Regulations" (FAR) means the applicable portions of the Federal Aviation Act and Federal Aviation R0e0gulations.

9. "Flight Day" means a 24 hour period (from midnight to midnight) either Universal Coordinated Time (UCT) or local time, as established by the operator, during which at least one flight is initiated for the affected aircraft.

10. "Icing Conditions" means an atmospheric environment that may cause ice to form on the aircraft (structural) or in the engine(s) (induction).

11. Alphabetical symbol in Column 4 indicates a proviso (condition or limitation) that must be complied with for operation with the listed item inoperative.

12. "Inoperative" means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within its approved operating limit(s) or tolerance(s).

13. "Notes:" in Column 4 provides additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is intended to assist with compliance, but do not relieve the operator of the responsibility for compliance with all applicable requirements. Notes are not a part of the provisos.

14. Inoperative components of an inoperative system: Inoperative items which are components of a system which is inoperative are usually considered components directly associated with and having no other function than to support that system. (Warning/caution systems associated with the inoperative system must be operative unless relief is specifically authorized per the MMEL).

15. "(M)" symbol indicates a requirement for a specific maintenance procedure which must be accomplished prior to operation with the listed item inoperative. Normally these procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment should be accomplished by maintenance personnel. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as part of the operator's manual or MEL. 16. "(O)" symbol indicates a requirement for a specific operations procedure which must be accomplished in planning for and/or operating with the listed item inoperative. Normally these procedures are accomplished by the flight crew; however, other personnel may be qualified and authorized to perform certain functions. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the operator. Appropriate procedures are required to be published as a part of the operator's manual or MEL.

NOTE: The (M) and (O) symbols are required in the operator's MEL unless otherwise authorized by the Administrator.

17. "Deactivated" and "Secured" means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.

18. "Visual Flight Rules" (VFR) is as defined in <u>FAR Part 91</u>. This precludes a pilot from filing an Instrument Flight Rules (IFR) flight plan.

19. "Visual Meteorological Conditions" (VMC) means the atmospheric environment is such that would allow a flight to proceed under the visual flight rules applicable to the flight. This does not preclude operating under Instrument Flight Rules.

20. "Visible Moisture" means an atmospheric environment containing water in any form that can be seen in natural or artificial light; for example, clouds, fog, rain, sleet, hail, or snow.

21. "Passenger Convenience Items" Deleted, see NEF 30.

22. Repair Intervals: All users of an MEL approved under 14 CFR <u>121</u>, <u>125</u>, <u>129</u> and <u>135</u> must effect repairs of inoperative systems or components, deferred in accordance with the MEL, at or prior to the repair times established by the following letter designators. **14 CFR** <u>91 MEL users do not need to comply with the repair categories, but shall comply with any provisos defining a repair interval (flights, flight legs, cycles, hours, etc). The letter designators are inserted adjacent to Column 2.</u>

Category A. Items in this category shall be repaired within the time interval specified in the remarks column of the operator's approved MEL. For time intervals specified in "calendar days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. For all other time intervals (flights, flight legs, cycles, hours, etc), repair tracking begins at the point when the malfunction is deferred in accordance with the operator's approved MEL.

Category B. Items in this category shall be repaired within three (3) consecutive calendar days (72 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the three day interval would begin at midnight the 26th and end at midnight the 29th.

Category C. Items in this category shall be repaired within ten (10) consecutive calendar days (240 hours), excluding the day the malfunction was recorded in the aircraft maintenance record/logbook. For example, if it were recorded at 10 a.m. on January 26th, the 10 day interval would begin at midnight the 26th and end at midnight February 5th.

Category D. Items in this category shall be repaired within one hundred and twenty (120) consecutive calendar days (2880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record.

An operator who has the authorization to use an MEL also has the authority to approve extensions to the maximum repair interval for category B and C items provided the responsible Flight Standards District Office (FSDO) is notified within 24 hours of the MEL extension. The operator is not authorized to extend A and D items in the MEL. Misuse of the MEL extension authority may result in the operators OpSpecs/Mspecs being amended by removing the authority for the operator to use the MEL extension authority and/or use an MEL.

23. Electronic fault alerting system – General New generation aircraft display system fault indications to the flight crew by use of computerized display systems. Each aircraft manufacturer has incorporated individual design philosophies in determining the data that would be represented.

The following are customized definitions (specific to each manufacturer) to help determine the level of messages affecting the aircraft's dispatch status. When preparing the MEL document, operators are to select the proper Definition No. 23 for their aircraft, if appropriate.

#### a. BOEING (747-400, 747-8, 757, 767, 777, 787)

Boeing airplanes equipped with Engine Indicating and Crew Alerting Systems (EICAS), provide different priority levels of system messages (WARNING, CAUTION, ADVISORY, STATUS and MAINTENANCE). Any messages that affects airplane dispatch status will be displayed at a STATUS message level or higher. The absence of an EICAS STATUS or higher level (WARNING, CAUTION, ADVISORY) indicates that the system/component is operating within its approved operating limits or tolerances. System conditions that result only in a maintenance level

message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operators standard maintenance program.

b. BOEING (B-717, MD-10, MD-11)

These aircraft are equipped with an alerting function which is a subsystem within the Electronic Instrument System (EIS). The alerting function provides various levels of system condition alerts (WARNING, CAUTION, ADVISORY, MAINTENANCE and STATUS). Alerts that affect aircraft dispatch will include WARNING, CAUTION, STATUS or MAINTENANCE level. MAINTENANCE alerts are displayed on the status page of the EIS display panel under the maintenance heading.

A MAINTENANCE alert on the EIS indicates the presence of a system fault which can be identified by the Central Fault Display System (CFDS) interrogation. The systems are designed to be fault tolerant, however, for any MAINTENANCE alert, the MEL must be verified for dispatch purposes.

#### c. AIRBUS (A300-600, A310, A318/319/320/321, A330, A340, A380)

Airbus aircraft equipped with Electronic Centralized Aircraft Monitoring (ECAM) provide different levels of system condition messages {WARNING (red), CAUTION (amber)}. On A318/319/320/321, A330 and A340, the ECAM STATUS page also provides MAINTENANCE STATUS messages. Any message that affects airplane dispatch is displayed at the WARNING or CAUTION level. For A318/319/320/321, MAINTENANCE STATUS messages may also affect airplane dispatch. System faults that result only in messages on the Central Maintenance System (CMS) (for A330, A340 and A380) or on the Centralized Fault Display System (CFDS) (for A318/319/320/321) do not affect airplane dispatch and do not require action other than as addressed within the operator's standard maintenance program.

#### d. FOKKER (FK-100)

Fokker aircraft are equipped with Multi Function Display System (MFDS) which provides electronic message referring to the different priority levels of system information (WARNING (red), CAUTION (amber), AWARENESS (cyan) AND STATUS (white). Any messages that affects aircraft dispatch will be at the WARNING, CAUTION or AWARENESS level. In these cases the MEL must be verified for dispatch capability and maintenance may be required. System conditions that only require maintenance are not presented on the flight deck. These maintenance indications/messages may be presented on the Maintenance & Test Panel (MAP) or the Centralized Fault Display Unit (CFDU) and by dedicated Built In Test Evaluation (BITE) of systems.

#### e. CANADAIR (CL-65, CL-604)

Canadair aircraft equipped with Engine Indication and Crew Alerting Systems (EICAS) provide four classes of messages (WARNING, CAUTION, ADVISORY, and STATUS). Any message that affects aircraft dispatch will be at the WARNING, CAUTION, or STATUS level. System conditions that only require maintenance are not visible to the flight crew. These maintenance indications/messages are only activated by maintenance personnel using the Maintenance Diagnostics Computer.

#### f. EMBRAER (EMB-135/145, ERJ-170/190 Series)

The EMB-135/145 and ERJ-170/190 are equipped with an Engine Indicating and Crew Alerting System (EICAS) that provides three different message levels: WARNING, CAUTION, and ADVISORY. The ERJ-170/190 Series add STATUS messages. Failures that effect dispatchability are presented to the flight crew at one of these levels. Other failures may be presented only to the maintenance personnel on the Multi Function Display (MFD) maintenance pages or through the download of the Central Maintenance Computer (CMC). System conditions that result only in a maintenance level message, i.e. no correlation with a higher level EICAS message, do not affect dispatch and do not require action other than as addressed within an operator's standard maintenance program.

#### g. GULFSTREAM (G-IV, G-V, GV-SP,GIV-X, G-150 and G-200)

Gulfstream airplanes equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY, STATUS and MAINTENANCE (cyan or blue). Any WARNING or CAUTION message affects airplane dispatch status and requires that the Airplane Flight Manual or the MEL be used to determine dispatch capability. STATUS messages which indicate a system failure (e.g., FMS 1 fail) require that the Airplane Flight Manual or the MEL be used to determine dispatch capability. MAINTENANCE messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be identified by Maintenance Data Acquisition Unit (MDAU on the G-V) interrogation, Central Maintenance Computer (CMC on the GV-SP/GIV-X) interrogation or by reference to the Airplane Flight Manual.

Gulfstream mid-cabin airplanes (G-150, G-200) equipped with EICAS provide different priority levels of system messages: WARNING (red), CAUTION (amber), ADVISORY (green), and STATUS (white). The Airplane Flight Manual prohibits take off with any WARNING message displayed. CAUTION, ADVISORY and STATUS messages may affect airplane dispatch status and requires the Airplane Flight Manual or the MEL be used to determine dispatch capability. The airplane may dispatch with CAUTION, ADVISORY and STATUS messages that indicate proper system operation and are not illuminated due to a system failure (i.e. FUEL STBY PUMP ON when the pump is selected ON, GND A/B OUT with LAND selected on the ground, or APU GEN OFF with the switch OFF). MAINTENANCE and MAINTENANCE DATA STATUS messages do not affect airplane dispatch status. They indicate the presence of a system fault which can be retrieved from the Maintenance Diagnostics Computer. In all cases, the Airplane Flight Manual must be referenced and procedures compiled with for the displayed message prior to applying MEL dispatch relief.

#### h. De-HAVILLAND (DASH 8 SERIES 400)

Series 400 aircraft are equipped with a Caution/Warning Panel that annunciates all cautions and warnings. Advisory messages are displayed by the Electronic Indication System (EIS) or individual advisory lights supplied in the cockpit. "Class 1 failures" are failures that prevent continued operation of a specific Line Replacement Unit or channel and are annunciated via advisory messages: caution, warning or advisory lights in the flight compartment. Dispatch with such posted failures are to be in accordance with the MMEL. "Class 2 failures" are failures which do not prevent continued system function. These faults will not be annunciated to the flight crew and the absence of the higher level alert (warning, caution, advisory) indicates that the system/component is operating within its approved operating limits or tolerances. Such faults would be evident during maintenance interrogation performed during maintenance activities. Class 2 faults do not affect dispatch and will be listed in the Fault Isolation Manual (FIM). Class 2 faults will be left to the discretion of the operators when these faults are to be rectified.

24. "Administrative control item" (ACI) means an item listed by the operator in the MEL for tracking and informational purposes. As an example, ACI may be used to track ETOPS accomplishment of required APU cold-soak, or in-flight verification starts. It may be added to an operator's MEL by approval of the Principal Operations Inspector provided no relief is granted, or provided conditions and limitations are contained in an approved document (i.e. Structural Repair Manual, airworthiness directive, etc.). If relief other than that

granted by an approved document is sought for an administrative control item, a request must be submitted to the Administrator. If the request results in review and approval by the FOEB, the item becomes an MMEL item rather than an administrative control item.

25. "\*\*\*" symbol in Column 1 indicates an item which is not required by regulation but which may have been installed on some models of aircraft covered by this MMEL. This item may be included on the operator's MEL after the approving office has determined that the item has been installed on one or more of the operator's aircraft. The symbol, however, shall not be carried forward into the operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

26. "Excess Items" means those items that have been installed that are redundant to the requirements of the FARs.

27. "Day of Discovery" is the calendar day an equipment/instrument malfunction was recorded in the aircraft maintenance log and or record. This day is excluded from the calendar days or flight days specified in the MMEL for the repair of an inoperative item of equipment. This provision is applicable to all MMEL items, i.e., categories "A, B, C, and D."

28. "Considered Inoperative", as used in the provisos means that item must be treated for dispatch, taxi and flight purposes as though it were inoperative. The item shall not be used or operated until the original deferred item is repaired. Additional actions include: documenting the item on the dispatch release (if applicable), placarding, and complying with all remarks, exceptions, and related MMEL provisions, including any (M) and (O) procedures and observing the repair category.

29. "Is not used" in the provisos, remarks or exceptions for an MMEL item may specify that another item relieved in the MMEL "is not used." In such cases, crewmembers should not activate, actuate, or otherwise utilize that component or system under normal operations. It is not necessary for the operators to accomplish the (M) procedures associated with the item. However, operational requirements must be complied with, and an additional placard must be affixed, to the extent practical, adjacent to the control or indicator for the item that is not used to inform crewmembers that a component or system is not to be used under normal operations.

30. Nonessential equipment and furnishings (NEF) are those items installed on the aircraft as part of the original type certification, supplemental type certificate, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification rules or operational rules. They are those items that if inoperative, damaged or missing have no effect on the aircraft's ability to be operated safely under all operational conditions. These nonessential items may be installed in areas including, but not limited to, the passenger compartment, flight deck area, service areas, cargo areas, crew rest areas, lavatories, and galley areas. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. They do not include items that are functionally required to meet the certification rule or for compliance with any operational rule. Operator's NEF process shall not provide for deferral of items within serviceable limits identified in the manufacturer's maintenance manual or operator's approved maintenance program such as wear limits, fuel/hydraulic leak rates, oil consumption, etc. Cosmetic items that are fully serviceable but worn or soiled may be deferred under an operator's NEF process. SHT MMEL/MEL Rev. 01 18

31. As used in MMELs, Heavy Maintenance Visit (HMV) is a scheduled C-check/D-check or airworthiness maintenance program inspection where the aircraft is scheduled to be out of service for 4 or more days.

REPUBLIC OF TURKEY							
MINISRTY OF TRANSPORT AND COMMUNICATION							
DIRECTORATE GENERAL OF CIVIL AVIATION							
MASTER MINIMUM EQUIPMENT LIST							
AIRCRAFT: REVISION NO: PAGE NO:							
DATE:							
1. SYSTEM,	2. REPAIR C	ATEGOR	XY				
SEQUENCE NUMBERS &	3. NU	JMBER IN	STALLED				
ITEM		4. NUM	BER REQUIRED FO	R DISPATCH			
			5. REMARKS AND E	XCEPTIONS			

#### Ek- 3

#### Çoklu Hizmet Verememe Durumları

(1) MMEL Önsöz'ünde her türlü hizmet verememe kombinasyonlarının tümünün göz önünde bulundurulamayacağını açıkça belirtmelidir.

(2) MMEL her türlü hizmet verememe kombinasyonunu göz önüne alamayacağından hizmet verememe durumlarının çeşitliliği sebebiyle birçok kombinasyonun MMEL kapsamına giremeyeceğinin kabul edilmesi gerekir.

#### EK-4

#### Onarım Süreleri

(1) MMEL/MEL'in amacı gerekli onarımların yapılabilmesi için gerekli süre içinde gayri faal teçhizat bulunduran uçakların operasyonuna izin vermektir.

(2) MMEL/MEL hava aracının uzun bir süre veya daimi olarak; sertifikalandırılmış konfigürasyonun dışında operasyon yapmasını sağlayan bir araç **değildir**. Bu nedenle onarımlar mümkün olan en kısa sürede gerçekleşmeli ve bu durumdan etkilenen uçaklar sertifikalandırılmış statülerine bir an önce getirilmelidir. Bu düzeyinin muhafaza edilebilmesi için MMEL gayri faal teçhizatları bulunduran uçakların operasyon süresine sınır getirmektedir. Bu sınırlar Onarım Süreleri olarak tanımlanmakta ve A, B, C veya D kategorileri olarak adlandırılmaktadır.

(3) MMEL'de her teçhizat için Onarım Süresi Kategorisi sütun 2 de verilmektedir. (EK-2' ye bakınız). Her gayri faal teçhizatın kategorisi bu Talimatın 11 inci maddesine göre belirlenecektir.

#### EK-5

#### MEL hazırlanması

1. Giriş

Aşağıda akış şemasında MEL hazırlanması için bu Ek'in nasıl kullanılması gerektiği anlatılmaktadır.

MEL aşağıda belirtilen ilkeler doğrultusunda hazırlanmalıdır:

a. SHT-MMEL/MEL veya daha önceki ulusal yönetmelikler uyarınca onaylanan MMEL şartları kullanılmalıdır.

b. MEL içeriği operatörün kullandığı uçak teçhizatlarını, konfigürasyonu ve işletme şartlarını, işletildiği güzergahları ve Genel Müdürlük tarafından belirlenen kuralları göz önünde bulundurmalıdır.

c. MEL uygulanabilir herhangi bir Uçuşa Elverişlilik Direktifi ve/veya diğer zorunlu şartlardan sapmamalı ve MMEL'den daha az kısıtlayıcı olmamalıdır.

d. Bu Talimatta verilen rehber bilgileri genel anlamda olup sisteme özel değildir (teçhizat veya tesis edilme). Bu nedenle (O) ve (M) referansları da genel anlamda olup, bazı durumlara uygulanabilmesi için eklenmiştir. MEL hazırlanırken (O) ve (M) referanslarının uygulanabilirliğinin belirlenmesi işleticinin sorumluluğundadır. Bu ilke aynı zamanda (O) ve/veya (M) referanslarının mevcut olmadığı durumlar için geçerlidir.

#### 2. MEL FORMATI VE İÇERİĞİ

MEL aşağıda yer alan hususları içermelidir.

- 1. Table of contents (İçindekiler)
- 2. Log of Revisions (Revizyon kayıt sayfası)
- 3. Log of Temporary Revisions (Geçici Revizyon kayıt sayfası)
- 4. List of Holders (Dağıtım listesi 6 Post Holder+SHGM+Baş Dispacher+A/Cs

vb.)

5. List of Abbreviations (Kısaltmalar listesi)

6. List of Effective pages (Etkin sayfalar): Her MEL sayfasının güncel olmasının sağlanması için Etkin Sayfalar Listesi (LEP) kullanılacaktır. Bu listede MEL'in her sayfası ile ilgili en son güncelleme tarihi belirtilecektir. MEL'in her sayfası ile ilgili tarih ve revizyon statüsü Etkin Sayfalar Listesinde belirtilen bilgilerle örtüşmelidir.

7. Definitions (Açıklamalar)(Ek-2'de yer alan "definitions" kullanılabilir.)

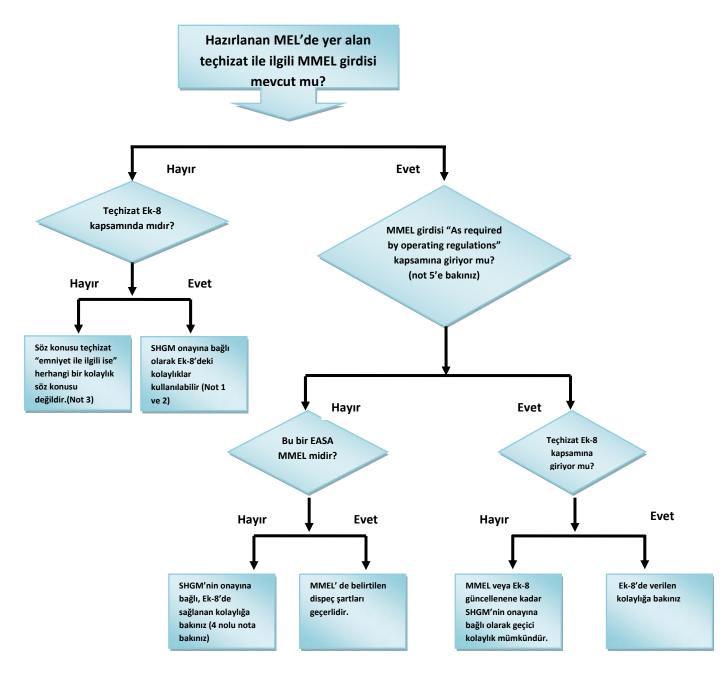
- 8. ATA chapter Listesi
- 9. Standart PREAMBLE (SHGM tarafından hazırlanan) (ekte yer almaktadır.)

Yukarıda yer alan hususlar içeren MEL ilgili tüm dokümanlar ile birlikte Ek-9 yer alan MEL hazırlama kontrol formu doldurulup, başvuru yazısı ile **CD olarak** Genel Müdürlüğe gönderilmelidir.

#### Not: Örnek MEL sayfası formatı Ek-10'da yer almaktadır.

SHT MMEL/MEL Rev. 01

#### MEL Hazırlanmasına ilişkin Akış Şeması



**Not 1:** Uçağın uçuşa elverişliliği ile ilgisi olan ve MEL'de bulunmayan teçhizatın faal olması gerekmektedir.

**Not 2:** MMEL veya Ek-8 kapsamında kolaylık tanınmadığı sürece tüm SHT OPS 1/3 – EU OPS kapsamındaki teçhizatların faal durumda olması gerekmektedir.

**Not 3:** Uçuş emniyetini doğrudan ilgilendirmeyen teçhizatlar listeye dâhil edilmeyecektir. İşleticiler, MEL'de listelenmeyen arızaların uçağın uçuşa elverişliliği ile ilgili olup olmadığını ve emniyetli operasyon için gerekip gerekmediğini belirlemek amacıyla etkin bir karar verme prosesi belirlemelidir. **Not 4:** SHT MMEL MEL / JAR MMEL MEL'e uygun hazırlanmamış MMEL'lerde Genel Müdürlük / EASA politikalarına dayanmayan ve tasarımla ilgili olmayan MMEL maddeleri yerine Ek-8'in ilgili kısımları konmalıdır.

**Not 5:** SHT MMEL MEL / JAA MMEL MEL'e uygun hazırlanmamış MMEL'lerde bulunan "As required by FAR/JAR" veya "As required by Regulations" gibi ifadeler "işletme şartları gereği" şeklinde yorumlanmalıdır.

#### İşletme El kitabı ile ilgili Prosedürler

İşletici, İşletme El Kitabında uçuş ekibinin MEL kullanırken faydalanacağı prosedürleri oluşturmalıdır. Prosedürler Bakım El kitabında bulunanlarla örtüşmelidir. MEL İşletme El kitabının bir parçasıdır.

#### Etiketleme (Plakart) işlemleri

Gayrifaal teçhizat; uygun olduğu durumlarda uçuş ekibini teçhizatın durumu hakkında bilgilendirmek için etiketlenmelidir. Kullanım dışı olan teçhizatlar veya öğeleri ile ilgili kontrol(ler) ve/veya göstergeler uçuş ekibinin görebileceği yerde birim veya öğeler açık bir şekilde işaretlenmelidir.

MEL bazı teçhizatın etiketlenmesinde özel ifadeler kullanılmasını gerektirebilir. Bu gibi durumlarda etikette kullanılması gereken ifade ve etiketin yerinin belirlenmesi işleticinin kendi sorumluluğundadır.

İşletici, uçak uçuşa verilmeden önce etiketlerin olmaları gereken yerlerde olduğundan emin olmaları için uçuş ekibine kabiliyet ve talimatları sağlamalıdır.

#### Eğitim

#### Eğitim Programı – Bakım Personeli

İşletici bakım personeline yönelik MEL eğitim programı hazırlamalı ve programı MEL işletme onayı almadan önce onaylanması gereken Bakım Yönetimi El Kitabı ve İşletme El kitabına dahil etmelidir. Eğitim, Bakım Yönetimi El Kitabı ve İşletme El Kitabının MEL kullanımı, gayri faal teçhizatın etiketlenmesi, onarım süresi erteleme, dispeç ve MEL ile ilgili diğer prosedürleri kapsayan kısımlarını içermelidir.

#### Eğitim Programı – Uçuş Ekibi

İşletici, uçuş ekibine MEL eğitimi vermeli ve bu eğitimi İşletme El kitabında detaylandırmalıdır. Eğitim MEL'in amacı ve kullanılmasını, şirketin MEL prosedürleri hakkındaki Talimatları, temel bakım prosedürleri ve kaptan pilotun sorumluluklarını içermelidir. Pilotlar, uçuş mühendisleri ve kabin memurları uçuş ekibi kategorisine dâhildir.

## REPUBLIC OF TURKEY MINISRTY OF TRANSPORT AND COMMUNICATION DIRECTORATE GENERAL OF CIVIL AVIATION MINIMUM EQUIPMENT LIST (AIRCRAFT TYPE)

#### PREAMBLE

#### 1.Introduction

XXXX Airlines (Ticari Ünvanı) Aircraft type Minimum Equipment List, Rev XX issue, **Dated** .../.../.... is in compliance with Master Minimum Equipment List, revision XX dated .../.../.... issued by **xxxx** approved by **xxxxx**, JAA AGM TGL Leaflet 26, JAR-OPS 1/3 MEL Policy Document SHT MMEL/MEL, dated .../.../..., the requirements of RVSM operation (reduced vertical separation minima), low visibility operation (cat II/ cat IIIa operation), B-RNAV operation (basic area navigation), incorporation of enhanced cockpit doors and P-RNAV operation (precision area navigation).

This MEL is applicable to **XXX Airlines (Ticari Ünvan)**'s aircraft with following registration marks:

TC-XXX Aircraft Type (MSN XXX)

TC-XXX Aircraft Type (MSN XXX)

TC-XXX Aircraft Type (MSN XXX)

This MEL takes into consideration **XXX airlines (Ticari Ünvan)** particular aircraft equipment, configuration and operational conditions, routes being flown and requirements set by the Turkish Directorate General of Civil Aviation.

This MEL will not deviate from the airplane flight manual limitations or emergency procedures or from any applicable airworthiness directive and will be no less restrictive then MMEL.

The MEL is intended to permit operations for a limited period with inoperative items of equipment. however, if time limitations for inoperative items are not available in the mel, it is important to make repairs as early as possible at the main base where repairs or replacements can be made, since additional malfunctions may require the airplane to be taken out of service.

MEL conditions and limitations do not relieve the commander from determining that the aircraft is in a fit condition for safe operation with specified unserviceabilities.

The provisions of MEL are applicable until the airplane commences the flight.

Any decision to continue a flight following a failure or unserviceability which becomes apparent after the commencement of a flight (the point at which the aircraft first moves under its own power) must be the subject of pilot judgment and good airmanship. the commander may continue to make reference and use of the mel as appropriate.

By approval of the MEL, turkish dgca permits dispatch of the airplane for <u>revenue</u>, <u>special or</u> <u>training flights</u> with certain items or components inoperative provided an acceptable level of safety is maintained by use of appropriate operational or maintenance procedures, by transfer of function to another operating component, or by reference to other instruments or components providing the required information.

For dispatch with secondary airframe or engine parts missing, reference must be made to configuration deviation list (CDL).

#### 2. Contents Of MEL

The MEL contains only those items required by operating regulations or those items of airworthiness significance which may be inoperative prior to dispatch, provided limitations and appropriate procedures are observed. equipment obviously to the airplane airworthiness such as wings, rudders, flaps, engines, landing gear, etc. is not listed and must be operative for all flights. It is important to note all items which are related to the airworthiness of the airplane and not included on the list are automatically required to be operative.

Equipment <u>obviously not required</u> for safe operation of the airplane such as galley equipment, passenger convenience items, etc. <u>is not listed.</u>

#### 3. Criteria For Dispatch

The decision of commander of the flight to have allowable inoperative items corrected prior to flight will take precedence over the provisions contained in the mel. the commander may request requirements above the minimum listed in the mel, whenever in his judgment such added equipment is essential to the safety of a particular flight under the special conditions prevailing at the time. however, he shall never accept lower requirements.

Wherever possible, account has been taken in this mel of multiple inoperative items. however, it is unlikely that all possible combinations of this nature have been accounted for. therefore, when operating with multiple inoperative items, the inter-relationships between those items and the effect on the aircraft operation and crew workload must be considered.

The MEL cannot take into account all multiple unserviceabilities. therefore, before dispatching an airplane with multiple mel items inoperative, it must be assured that any interface or inter-relationship between inoperative items will not result in degradation in the level of safety and/or an undue increase in crew workload. It is particularly in this area of multiple discrepancies in related items that good judgment, based on the circumstances of the case, including climatic and enroute conditions must be used.

#### 4. Maintenance Action

Every effort shall be made by maintenance to correct all technical irregularities as early as practicable and that the airplane to be released from a maintenance base in fully operational condition. the decision of the commander to comply with the appropriate mel requirement and to postpone maintenance activity will supersede any other intention. the commander must be informed by maintenance as soon as practicable, should it be imposed to repair the inoperative item prior to departure.

Whenever an airplane is released by maintenance for dispatch with items inoperative, following is required:

The technical log book aboard the airplane must contain a detailed description of the inoperative item(s), special advice to the flight crew, if necessary, and information about corrective action taken. when they are accessible to the crew in flight, the control(s), and/or indicator(s) related to inoperative unit(s) or component(s) must be clearly placarded.

If inadvertent operation could produce hazard, such equipment must be rendered inoperative (physically) as given in the appropriate maintenance procedure.

The relevant operational and maintenance procedures are contained in the AFM, operations Manual, AMM, MME.

#### **5. Rectification Intervals**

## (Refer to SHT MMEL/MEL Art.20 abd App.4 / JAR-MMEL/MEL.080 and ACJ JAR/MMEL/MEL.040/080)

XXX Airlines shall take account of the rectification intervals given in the "defination" section when preparing its own MEL.

XXX Airlines may permit a **one time extension** of the applicable **rectification interval "b"**, **"c" and "d"**, for the same duration as that specified in this mel, provided that Turkish DGCA must be notified within 30 days upon rectification of the defect.

Dispatch of the aircraft is not allowed after expiry of the rectification interval specified in this mel, unless:

- The rectification interval is extended in accordance with the paragraph above, or
- The defect has been rectified.

#### 6. Special Flights

Special flights may be dispatched with less than the equipment specified in this mel provided all the equipment expected to be utilized during the flight is operable and any relevant sections of the flight manual are applied.

Permission for special flights, however, must be requested from DGCA before each special flight.

#### 7. Revision System For MEL

When a MMEL revision for the airplane type is issued, **XXX airlines (Ticari Ünvan)** will have 90 days from issuance date of MMEL to revise and send the revised MEL to DGCA for approval.

The responsible person(s) for pursuing the MMEL revisions, revising the MEL accordingly, sending the revised MEL to DGCA for approval and after approval, distributing the MEL revision pages to related persons is/are listed below:

Name/Surname

**Technical Manager** 

Signature

Name/Surname	е
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**Quality Manager** 

Signature

#### EK-6

#### MEL Onarım Süresi Uzatılması (RIE)

İşletici düzeltici işlemlerin en kısa zamanda yapılmasını sağlayacaktır. RIE'ler düzeltici işlemlerin mümkün olamadığı durumlarda işleticinin uçağını onarım süresi aşıldıktan sonrada işletebilmesine imkan sağlamak için uygulanmaktadır. RIE kullanan işletici kullandığı RIE'leri geriye dönük olarak (son 30 gün) Genel Müdürlüğe rapor edecektir.

Genel Müdürlük RIE prosedürü oluşturup kullanmak üzere başvuruda bulunan işletmelerin taleplerini gerekli operasyonel ve mühendislik yeterliliklerine sahip olmadıkları gerekçesiyle reddedebilir.

İşletici, RIE prosedürünün kontrolünden sorumlu olmak üzere belirlediği kişilerin isim ve görevleri ile RIE kullanımının kontrolü ile ilgili özel görev ve sorumlulukları Genel Müdürlüğe bildirecektir.

Teknik ve/veya operasyonel disiplinlerde yeterince eğitime sahip olması gereken yetkilendirici personelin isimleri listelenmelidir.

Genel Müdürlük işleticinin mühendislik konusundaki yeterliliğini ve yetkilendirici personelin kabul edilebilirliğini göz önünde bulundurmalıdır.

İşleticin sözleşmeli bakım kuruluşlarından hizmet alması durumunda, bakım kuruluşu ile işletici arasındaki ilişkinin RIE yönetimi açısından yeterli olup olmadığı Genel Müdürlük tarafından değerlendirilir.

İşletici, orijinal arızanın detaylarını, RIE'nin nedenini ve arızanın orijinal onarım süresinde giderilememesi sebeplerini Genel Müdürlüğün belirlemiş olduğu RIE bilgilendirme formu ile Genel Müdürlüğe bildirmek zorundadır.

#### EK-7

#### Onarım Süresi Uzatılması (RIE) Bilgilendirme Formu

#### Bölüm 1 - MEL Arızası

1. İşletme:	2. Arıza Tarihi:	3. Hava Aracı Tescil Işareti:		4. Hava Aracı Tipi:	5. RIE Numarası:
6. Arıza Detaylar		•	7. Onarılar	nama Gerekçesi:	-
8. Onarım Süresi	Kategorisi:	9. Onarım Bitiş Tarihi		10. MEL Referan	is Numarasi:

#### Bölüm 2 - RIE Uygulaması

11. Uygulama Yapan Personel:	12. Görevi:
13. Onarım Süresinin Uzatılma Nedeni:	

#### Bölüm 3 - Yetkilendirme

14. Onarım Süresi Uzatımı Süresi:	15. Arızanın Giderilmes	i Gereken Son Tarih:
16. Yetkilendiren Yönetici Personel Görüşü: ( uygulamalarını da içerecek şekilde)	Bu teçhizat ile ilgili olara	ak varsa geçmiş RIE
17. Yetkilendiren Yönetici Personel:	18. Görevi:	19. Tarih:

Not: Bu form SHT MMEL/MEL Talimatının 21 inci maddesi uyarınca doldurularak pdf formatında <u>maintenance@shgm.gov.tr</u> ve <u>operasyon@shgm.gov.tr</u> elektronik posta adreslerine gönderilmelidir.

Ekipman	ΑΤΑ	EU-OPS 1 Referansı	SHT-OPS 1 Referansı	Sayfa Numarası
Equipment for making Sound Signals	10-20	1.840	175	3
Sea Anchor	10-20	1.840	175	3
Autopilot	22-10	1.655	139	4
Headset	23-10	1.650 / 1.652	137/138	5
Audio Selector Panel	23-10	1.855	178	5
HF Communications	23-11	1.865	180	5-6-7
VHF Communications	23-12	1.860 / 1.865	179/180	7
Public Address System	23-30	1.695	148	8
Flight Crew Interphone System	23-40	1.685	146	8
Cabin Interphone System	23-40	1.690	147	9-10
Cockpit Voice Recorder	23-71	1.700 / 1.705 / 1.710	149/150/151	10
Flight Crew Seats	25-11	1.730	156	11
Supernumerary Seats	25-11	1.730	156	11
Passenger Seats	25-21	1.730	156	11-12
Required Cabin Crew Seats	25-21	1.730	156	13
Non-Required Cabin Crew Seats	25-21	1.730	156	14
Torches	25-60	1.640	135	14
Protective Breathing Equipment	25-60	1.780	164	14
Escape Slides	25-60	1.805	168	14
Megaphones	25-60	1.810	169	15
Life-rafts and Survival ELT(S) for Extended. Overwater Flights	25-60	1.830	173	15
Survival Equipment	25-60	1.835	174	15
Crash Axes and Crowbars	25-61	1.795	166	15
First Aid Kit	25-62	1.745	159	15
Emergency Medical kits	25-62	1.755	160	16
ELT	25-63	1.820	171	16
Lifejackets	25-64	1.825	172	16
Hand Fire Extinguishers	26-24	1.790	165	17
Inertial Separators	30-00	1.675(a)	144(1)	18
Surface De-icing / Anti-icing Systems – Wing,			144(1)	18
Vertical / Horizontal Stabilizers	30-10	1.675(a)		
Engine Inlet De-icing / Anti-icing System	30-21	1.675(a)	144(1)	18
Pitot Heating Systems	30-31	1.650 / 1.652	137/138	19
Pitot Heater Failure Indication System	30-31	1.650 / 1.652	137/138	20
Static Port Heaters	30-31	1.675(a)	144(1)	21
Stall Warning Vane Heaters	30-32	1.675(a)	144(1)	22
Equivalent means to being equipped with			136	22
windshield wipers	30-40	1.645		
Windshield Heating / De-icing System	30-41	1.675(a)	144(1)	22
Windshield Wipers	30-42	1.645	136	22-23
Propeller De-ice / Anti-ice System	30-61	1.675(a)	144(1)	23
Ice Evidence Probe	30-80	1.675(a)	144(1)	23
Ice Detection System	30-80	1.675(b)	144(2)	23
Cosmic Radiation Detection Equipment	31-00	1.680	146	24
Clocks	31-21	1.650 / 1.652	137/138	24
Flight Data Recorder	31-31	1.715 / 1.720 / 1.725	152/153/154	24-25
Combination Recorder	31-31	1.727	155	25-26
Quick Access Recorder	31-31	1.037	11	27

Ekipman	ΑΤΑ	EU-OPS 1 Referansi	SHT-OPS 1	Sayfa
•			Referansı	Numarası
Flight Deck Lighting	33-10	1.640	135	28
Passenger Compartment Lighting	33-20	1.640	135	28
Cabin Signs (Fasten seat belts etc.)	33-20	1.731	157	29
General Cabin Illumination	33-20	1.815	170	29
Lights for seaplanes / amphibians	33-29	1.640	135	29
Ice Evidence Probe Light	33-40	1.675(a)	144(1)	29
Navigation / Position Lights	33-41	1.640	135	30
Anti-Collision Light Systems	33-42	1.640	135	30
Wing Illumination Lights	33-43	1.675(b)	144(2)	30
Landing Lights	33-44	1.640	135	31
Cabin Emergency Lighting	33-50	1.815	170	31-32
Exterior Emergency Lighting Systems	33-50	1.815	170	32
Airspeed Indicators	34-10	1.650 / 1.652	137/138	33
Altimeters	34-10	1.650 / 1.652	137/138	33-34
Mach Indicators	34-10	1.650 / 1.652	137/138	34
OAT Indicator	34-10	1.650 / 1.652	137/138	34
Turn and Slip Indicator / Turn			137/138	34-35
Co-ordinators	34-10	1.650 / 1.652		
Vertical Speed Indicators	34-10	1.650 / 1.652	137/138	35
Altitude Alerting System	34-15	1.660	140	35
Stabilised Direction Indicators	34-20	1.650 / 1.652	137/138	36-37
Attitude Indicators	34-20	1.650 / 1.652	137/138	38
Standby Attitude Indicator	34-20	1.650 / 1.652	137/138	38
Magnetic Compass	34-22	1.650 / 1.652	137/138	39
Marker Beacon	34-31	1.865	180	39
ILS (or MLS)	34-32	1.865	180	39
Airborne Collision Avoidance System (ACAS)	34-40	1.668	142	39-40
Area Navigation System	34-40	1.865	180	40-41
Weather Radar System(s)	34-41	1.670(a)	143(1)	41
Ground Proximity Warning Systems (GPWS / TAWS)		1.665	141	41-42
Long Range Navigation Systems (LRNS)	34-50	1.870	182	42-43
VOR Navigation	34-51	1.865	180	44
Distance Measuring Equipment (DME)	34-51	1.865	180	45
ADF Receiver	34-52	1.865	100	45
SSR Transponder	34-54	1.866		46-47
			100	
Oxygen Systems Non-Pressurised Aeroplane	35-00	1.775	163	48
Flight Crew Oxygen System (Supplemental)	35-10	1.770	162	48
Passenger Oxygen System (Suppl.)	35-20	1.770	162	48-49
First Aid Oxygen	35-50	1.760	161	50
Emergency Exits	52-22	1.805	168	51-52-53
Flight Compartment Door	52-51	1.735	158	53
Reinforced Flight Deck Door	52-51	1.1255	238	54-55-56

ATA Chapter: 10 Parking, Mooring, Storage and Return to Service							
(1) Sys	tem & Sequence Numbers	(2) F	2) Rectification Interval				
ITEM	-		(3) N	lumbe	er installed		
				(4) N	Number required for dispatch		
					(5) Remarks or Exceptions		
ATA							
10-20	Equipment for making Sound Signals <i>(JAR-OPS 1.840)</i>	D	-	-	(M) Any in excess of those required may be missing or inoperative provided, the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.		
10-20	Sea Anchor (JAR-OPS 1.840)	D	-	-	Any in excess of those required may be missing or inoperative.		

ATA Chapter: 22 Autoflight					
(1) Sys	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM		(3) Number installed			
				(4) N	lumber required for dispatch
					(5) Remarks or Exceptions
ATA					
22-10	Autopilot (JAR-OPS 1.655)				Note 1: An automatic altitude control system is required to be operative for RVSM operations.
					Note 2: Any autopilot function that is operative may be used.
	(1) Single Pilot operations	D	-	1	Any in excess of one may be inoperative.
	(2) Two Pilot operations	С	-	1	(M)(O) One or more functions may be inoperative on the affected autopilot provided:
					(a) Inoperative functions are deactivated as applicable,
					(b) Applicable operating minima do not require their use, and
					(c) The navigation specifications of the route to be flown do not require their use.
		В	-	0	(M)(O) One or more functions may be inoperative provided:
					<ul> <li>(a) For the intended operations, any increase in crew workload caused by the inoperative functions has been considered,</li> </ul>
					(b) Inoperative functions are deactivated as applicable,
					(c) Applicable operating minima do not require their use, and
					(d) The navigation specifications of the route to be flown do not require their use.

ATA Cł	napter: 23 Communications				
(1) System & Sequence Numbers		(2) F			Interval
Item		_	(3) N		er installed
				(4) N	Number required for dispatch
ΑΤΑ					(5) Remarks or Exceptions
23-10	Headset (JAR-OPS 1.650/652)	D	-	-	Any in excess of one headset (including boom microphone) for each required crew member on flight deck duty may be inoperative or missing.
23-10	Audio Selector Panel (JAR-OPS 1.855)	D	-	-	Any in excess of one for each required crew member on flight deck duty may be inoperative.
		D	-	-	Any in excess of those required for the intended route may be inoperative provided the flight is conducted under VFR.
	<ul><li>(1) Press To Transmit</li><li>(PTT) Switches</li></ul>	В	-	-	(M) Any in excess of one for each required flight crew member may be inoperative provided the affected switch is either verified failed open or is deactivated.
23-11	HF Communications (If installed) <i>(JAR-OPS 1.865)</i>	D	-	-	Any in excess of those required for the intended route, may be inoperative.
	(JAN-OF 3 1.000)	С	-	1	(O) Any in excess of one may be inoperative for flight on a route that requires two Long Range Communication Systems, provided:
					<ul> <li>(a) SATCOM air-ground communications with Air Navigation Service Provider(s) are available for the intended route,</li> </ul>
					(b) SATCOM Voice or Data transfer functions are operative,
					<ul> <li>(c) Prior to each flight, coordination with the appropriate Air Navigation Service Provider(s) is established where INMARSAT codes, or equivalent, are not available whilst using SATCOM voice function, and</li> </ul>
					(d) Alternate communication procedures are established and used.
					(cont.)

ATAC	hapter: 23 Communications				
(1) Sys	tem & Sequence Numbers	(2) F	Rectifi	catior	Interval
İtem	·	. ,			er installed
				(4) 1	Number required for dispatch
					(5) Remarks or Exceptions
ATA					
23-11	HF Communications (If installed) <i>(JAR-OPS 1.865)</i> (cont.)				Note 1:SATCOM is to be used only as a backup to normal HF communications unless otherwise authorised by the appropriate Air Navigation Service Provider(s).Note 2:For intended routes, consider the need for
					ACAS.
		A	-	1	(O) Any in excess of one may be inoperative for a maximum of 3 calendar days for flight on a route that requires two Long Range Communication Systems, provided alternate communication procedures are established and used.
				Note 1: When the route enters airspace for which an In Flight Blind Broadcast Procedure exists, select the appropriate I.F.B.F. VHF frequency and apply the procedure.	
					Note 2: For intended routes, consider the need for ACAS.
		A	-	0	(O) One or more may be inoperative for a maximum of 3 calendar days for flight on a route that requires two Long Range Communication Systems provided:
					(a) SATCOM air-ground communications with Air Navigation Service Provider(s) for the intended route
					(b) SATCOM voice function is operative,
					<ul> <li>(c) Prior to each flight, coordination with the appropriate Air Navigation Service Provider(s) is established where INMARSAT codes, or equivalent, are not available whilst using SATCOM voice function,</li> <li>(d) Prior to each flight, permission is obtained from the appropriate Air Navigation Service Provider(s) to communicate via SATCOM</li> </ul>

					(e) Alternate communication procedures are established and used. (cont.)
ATA Cł	napter: 23 Communications				
(1) Sys Item ATA	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Number required for dispatch (5) Remarks or Exceptions
23-11	HF Communications (If installed) <i>(JAR-OPS 1.865)</i> (cont.)				<ul> <li><u>Note 1:</u> When operative, use of SATCOM Data transfer function should be part of these procedures.</li> <li><u>Note 2:</u> When the route enters airspace for which an In Flight Blind Broadcast Procedure exists, select the appropriate I.F.B.F. VHF frequency and apply the procedure.</li> <li><u>Note 3:</u> For intended routes, consider the need for ACAS.</li> </ul>
23-12	VHF Communications (JAR-OPS 1.860/865)	C	-	1	Any in excess of one, and not powered by an emergency bus, may be inoperative provided the flight is conducted under VFR over routes navigated by reference to visual landmarks.
		С	-	2	Any in excess of two, and not powered by an emergency bus, may be inoperative.
	(a) Frequency Transfer Light	С	-	0	One or more may be inoperative.
	(b) Frequency Transfer Switch	С	-	0	One or more may be inoperative
	(c) Frequency Selector Knob	С	-	2	Any in excess of two may be inoperative
	(d) Frequency Indication	С	-	2	Any in excess of two may be inoperative

ATA Ch	hapter: 23 Communications				
(1) Sys ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Jumber required for dispatch (5) Remarks or Exceptions
23-30	Public Address (PA) System <i>(JAR-OPS 1.695)</i>				
	(1) Passenger Configuration	В	-	0	<ul> <li>(O) May be inoperative provided:</li> <li>(a) Alternate normal and emergency procedures and/or operating restrictions are established and used, and</li> <li>(b) Flight crew compartment/cabin interphone system (including chime system) is operative.</li> </ul>
	(2) Cargo Configuration	D	-	0	(O) May be inoperative provided alternate normal and emergency procedures and/or operating restrictions are established and used.
23-40	Flight Crew Interphone System (Flight Deck Intercommunication) (JAR-OPS 1.685)				
	(1) Flight Crew to Ground	С	-	0	May be inoperative provided alternate procedures are established and used, if applicable
	(2) Ground Call Horn (If installed)	D	-	0	

(1) System & Sequence Numbers			(2) Rectification Interval						
ITEM		(			er installed				
		1			Number required for dispatch				
					(5) Remarks or Exceptions				
ATA									
23-40	Cabin Interphone System (JAR-OPS 1.690)								
	(1) Flight Deck to Cabin / Cabin to Flight Deck	В	-	-	(O) May be inoperative provided:				
	Cabin to Flight Deck				<ul> <li>(a) Flight deck door keypad (where installed) is verified to operate normally,</li> </ul>				
					<ul> <li>(b) Flight deck door automatic locking system (where installed) is verified to operate normally,</li> </ul>				
					(c) Alternate procedures are established and used for communications with the flight deck, and				
					(d) The PA system is operative.				
					Note: Any station that is operative may be used.				
	(2) Cabin to Cabin	С	1	0	(O) May be inoperative provided:				
					(a) Alternate normal and emergency procedures are established and used, and				
					(b) The PA system is operative.				
	<ul><li>(3) Flight Crew to Ground / Ground to Flight Crew</li></ul>	С	1	0	(O) May be inoperative provided alternate normal and emergency procedures are established and used.				
	(4) Alerting System	С	-	-	Visual signal may be inoperative on the flight deck.				
		С	-	-	Both visual and aural signals may be inoperative in the cabin provided the PA system is operative from the flight deck.				
					Note: Any station that is operative may be used.				
					(cont.)				

(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM		(, .			er installed
					Number required for dispatch
					(5) Remarks or Exceptions
ATA					
23-40	Crew Member Interphone System <i>(JAR-OPS 1.690)</i> (cont.)				
	(5) Handsets	С	-	-	Handsets at non-required stations may be inoperative.
		С	-	-	(O) One handset may be inoperative provided alternate procedures are established and used to compensate for the loss of PA and interphone function at the affected station.
					Note: Any handset in excess of that required at each station may be inoperative.
23-71	Cockpit Voice Recorder System (If installed) (JAR-OPS 1.700/705/710)				
	(1) CVR	А	-	0	One or more may be inoperative provided:
					<ul> <li>(a) The aeroplane does not exceed 8 further consecutive flights with the cockpit voice recorder inoperative,</li> </ul>
					(b) A maximum of 72 hours have elapsed since the cockpit voice recorder was found to be inoperative, and
					(c) Any Flight Data Recorder required to be carried is operative.
					<u>Note:</u> This alleviation is not applicable to combined CVR/FDRs. For those combined systems, see the entries for combination recorders in item 31-31.

ATA Cł	napter: 25 Equipment / Furnis	hings			
(1) Svs	tem & Sequence Numbers	(2) F	Rectifi	cation	Interval
ITEM		(2) 1			er installed
			(-)-		Number required for dispatch
				( )	(5) Remarks or Exceptions
ATA					
25-11	Flight Crew Seats (JAR-OPS 1.730)				
	(1) Power Adjustments (If installed)	D	-	0	May be inoperative for each flight crew member.
	(2) Manual Adjustments				
	(a) Horizontal Adjustment	-	-	-	Must be operative for each flight crew member.
	(b) Vertical and Recline Adjustment	В	-	0	One or more may be inoperative provided, the associated power adjustment of the affected flight crew member seat is operative.
		В	-	0	(M) One or more may be inoperative provided the associated seat is secured or locked in a position acceptable to the flight crew member.
	(c) Other Adjustments	С	-	0	(M) One or more may be inoperative provided the associated seat is secured in a position acceptable to the flight crew member.
					Note: If an inoperative armrest will hinder an emergency evacuation or any other flight duties it should be removed.
25-11	Supernumerary Seats (Observer Seats) <i>(JAR-OPS 1.730)</i>	D	-	0	One or more may be inoperative provided the seat is not required and is correctly stowed.
25-21	Passenger Seats (JAR-OPS 1.730)	D	-	-	(M) One or more may be inoperative secured in the upright position.
		D	-	-	(M) One or more may be inoperative provided the inoperative seat:
					(a) Does not block an emergency exit,
					(b) Does not restrict any passenger from access to the main aeroplane aisle, and
					(cont.)

(1) 0					laten al
	tem & Sequence Numbers	(2) F			Interval
ITEM		_	(3) N		er installed Number required for dispatch
				(4) 1	(5) Remarks or Exceptions
ATA					
25-21	Passenger Seats (JAR-OPS 1.730) (cont.)				(c) Is blocked and placarded "DO NOT
					OCCUPY".
					Note: A seat with an inoperative or missing seat belt is considered inoperative.
	(1) Underseat Baggage Restraining Bars	D	-	-	(O) May be inoperative or missing provided:
Restraining Dars				(a) Baggage is not stowed under associated seat,	
					(b) Associated seat is placarded "DO NOT STOW BAGGAGE UNDER THIS SEAT", and
					(c) Procedures are established to alert cabin crew of inoperative restraining bar.
	(2) Passenger Seat Armrests	D	-	-	<ul> <li>(M) One or more may be inoperative, damaged or missing, provided:</li> </ul>
					<ul> <li>(a) The affected armrest does not block an emergency exit,</li> </ul>
					(b) The affected armrest is not in a position such that it restricts any passengers from access to the aircraft aisle, and
					(c) For affected armrests with a seat recline mechanism, that seat is secured in the upright position.
					Note: Any damage to passenger seats and components must not be detrimental to passenger safety.

(1) System & Sequence Numbers			Rectifi	cation	Interval
ITEM		· /			rinstalled
			(-)		lumber required for dispatch
				``	(5) Remarks or Exceptions
ATA					
25-21	Required Cabin Crew Seat(s)	В	-	-	(M)(O) One seat or seat assembly may be inoperative provided:
	(JAR-OPS 1.730)				<ul> <li>(a) Inoperative seat or seat assembly is not occupied,</li> </ul>
				(b) Cabin crew displaced by inoperative seat occupies the adjacent cabin crew seat or the passenger seat most suitable to perform assigned duties,	
					(c) Alternate procedures are established and used for displaced cabin crew,
					(d) Folding type seat is stowed or secured in the retracted position, and
					(e) Where a passenger seat is assigned to the displaced cabin crew it is placarded "FOR CABIN CREW USE ONLY".
					Note 1: A seat with an inoperative or missing sea belt or harness is considered inoperative.
					<u>Note 2:</u> This requirement does not preclude use of passenger seats by cabin crew members carried in excess of the required cabin crew complement.
					Note 3: Any aeroplane which is subject to the direct view requirements of JAR/CS 25.785(h), may have one of the required cabin crew seats inoperative, provided the aeroplane does not depart a maintenance base where repairs or replacements can be made.

(1) 0				otles	later ol
	tem & Sequence Numbers	(2) F			Interval
ITEM			(3) N		er installed
				(4) N	Number required for dispatch
ATA					(5) Remarks or Exceptions
25-21	Non-Required Cabin Crew Seat(s)	С	-	0	(M)(O) Seat or seat assembly may be inoperative provided:
	(JAR-OPS 1.730)				(a) Inoperative seat or seat assembly is not occupied,
					(b) Alternate procedures are established and used for displaced cabin crew,
					(c) Folding type seat is stowed or secured in the retracted position, and
					(d) Where a passenger seat is assigned to the displaced cabin crew it is placarded "FOR CABIN CREW USE ONLY".
					<u>Note:</u> A seat with an inoperative or missing seat belt or harness is considered inoperative.
25-60	Torches (JAR-OPS 1.640)	С	-	-	One or more may be inoperative provided each required crew member assigned to affected position has an operative torch.
25-60	Portable Protective Breathing Equipment (PBE) (JAR-OPS 1.780)	D	-	-	(M) Any in excess of those required may be inoperative or missing provided the inoperative PBE is placarded inoperative, removed from the installed location, and placed out of sight so it cannot be mistaken for a functional unit.
25-60	Escape Slides (JAR-OPS 1.805)	-	-	-	One may be inoperative provided the associated door/exit is considered inoperative. Refer to item 52-22.
					Note: Refer to item 25-60 "Life Rafts and ELT for Extended Overwater Flights" when slides are used as rafts. Maintenance procedure should be retained to cover procedures required by aeroplane manufacturers, such as slide arming circuit deactivation.

(1) Suc	tem & Sequence Numbers	(2) [	Pactifi	ration	Interval
ITEM	dem & Sequence Mumbers	(2) 1			er installed
			(0) 1		Number required for dispatch
				(.,.	(5) Remarks or Exceptions
ATA					
25-60	Megaphones (JAR-OPS 1.810)				
	(1) Passenger Configuration	D	-	-	(M) Any in excess of those required may be inoperative or missing provided:
					<ul> <li>(a) The inoperative megaphone is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> </ul>
					(b) Required distribution of operative megaphones is maintained.
	(2) Cargo Configuration	D	-	0	May be inoperative.
25-60	Life-rafts and Survival ELT(S) for Extended Overwater Flights (JAR-OPS 1.830)	D	-	-	(M) Any in excess of those required may be missing or inoperative provided the inoperative equipment is placarded inoperative, removed from the installed location, and placed out of sight so it cannot be mistaken for a functional unit.
25-60	Survival Equipment <i>(JAR-OPS 1.835)</i>	D	-	-	(M) Any in excess of those required may be missing or inoperative provided the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.
25-61	Crash Axes and Crowbars (JAR-OPS 1.795)	D	-	-	Any in excess of those required may be inoperative or missing.
25-62	First Aid Kit (JAR-OPS 1.745)	D	-	-	Any in excess of those required may be incomplete or missing.
		A	-	-	If more than one is required, only one of the required first aid kits may be incomplete for a maximum of 2 calendar days.

ATA Ch	napter: 25 Equipment / Furnis	hings			
(1) Sys ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Number required for dispatch (5) Remarks or Exceptions
25-62	Emergency Medical Kits (JAR-OPS 1.755)	D	-	-	Any in excess of those required may be inoperative. The required emergency medical kits may be incomplete for flight to a destination where repairs or replacements can be made but not to exceed a maximum of 2 calendar days.
25-63	ELT (JAR-OPS 1.820) <i>(If installed)</i>	A D	-	0	May be inoperative for a maximum of 6 flights or 25 flight hours, whichever occurs first. Any in excess of those required may be inoperative.
25-64	Lifejackets (Land aeroplane, Seaplanes & Amphibians) <i>(JAR-OPS 1.825)</i>	D	-	-	<ul> <li>(M) Any in excess of those required may be missing or inoperative, provided:</li> <li>(a) Inoperative lifejacket is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> <li>(b) Required distribution of operative lifejackets is maintained.</li> </ul>

ATA Chapter: 26 Fire Protection								
(1) System & Sequence Numbers	(2) F	-		Interval er installed				
АТА	-	(0) .		Iumber required for dispatch (5) Remarks or Exceptions				
26-24 Hand Fire Extinguishers (JAR-OPS 1.790)	D	-	-	<ul> <li>(M) Any in excess of those required may be inoperative or missing provided:</li> <li>(a) The inoperative fire extinguisher is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> <li>(b) Required distribution is maintained.</li> </ul>				

(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM		(_)			er installed
			(-)		Number required for dispatch
					(5) Remarks or Exceptions
ATA					
					<u>Note</u> : In the absence of any Flight Manual limitations, icing conditions should be taken as visible moisture or precipitation, when the OAT is less than +5°C.
30-00	Inertial Separators (JAR-OPS 1.675(a))				
	<ul><li>(1) Position Indicating System</li></ul>	В	-	0	One or more may be inoperative for day VMC only, provided the aeroplane is not operated at any time in known or forecast icing conditions.
					Note: Inertial Separators includes pneumatic de-icing systems.
30-10	Surface De-icing / Anti-icing Systems – Wing, Vertical / Horizontal Stabilisers (JAR-OPS 1.675(a))				
	(1) Monitoring Systems	В	-	0	One or more may be inoperative for day VMC only, provided the aeroplane is not operated at any time in known or forecast icing conditions.
30-21	Engine Inlet De-icing / Anti-icing Systems (JAR-OPS 1.675(a))				
	(1) Monitoring Systems	В	-	0	One or more may be inoperative for day VMC only, provided the aeroplane is not operated at any time in known or forecast icing conditions.

ATA CI	napter: 30 Ice and Rain Prote	ction			
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM		( )			er installed
				(4) N	Number required for dispatch
ΑΤΑ					(5) Remarks or Exceptions
30-31	Pitot Heating Systems (If installed) (JAR-OPS 1.650/652)				Note: Pitot heating is required to be operative for RVSM operations.
	(1) Flight under day VFR				
	(i) Aeroplanes with a MCTOM not over 5700 kg and with a MAPSC of 9 or less seats	В	-	0	One or more may be inoperative for day VMC only provided the aeroplane is not operated at any time in known or forecast icing conditions.
	(ii) Aeroplanes with a MCTOM over 5700 kg or with a MAPSC of more than 9 seats	В	-	1	(O) (M) Any in excess of one may be inoperative for day VMC only provided:
					(a) The pilot's or co-pilot's pitot heater is verified to be operative prior to each flight, and
					(b) The aeroplane is not operated at any time in known or forecast icing conditions.
	(2) Flights under IFR or at night				
	(i) Single pilot operations	С	-	1	Any in excess of one may be inoperative
	(ii) Two pilot operations	С	-	2	Any in excess of two may be inoperative.
		В	-	1	(O)(M) Any in excess of one may be inoperative provided:
					(a) The remaining pitot heater is verified to be operative prior to each flight,
					(b) The pitot heat failure indication is verified to be operative prior to each flight, and
					(c) The aeroplane is not operated at any time in known or forecast icing conditions.

(1) 0	tom & Coguanaa Numbers	()) [	(2) Rectification Interval							
(1) Sys	tem & Sequence Numbers	(2) F	(2) Rectification interval (3) Number installed							
			(3)		Number required for dispatch					
				( .) .	(5) Remarks or Exceptions					
ATA										
30-31	Pitot Heater Failure Indication System (where required) (JAR-OPS 1.650/652)									
	(1) Day VFR operations	D	-	0	May be inoperative.					
	(2) IFR or Night operations									
	(a) Single pilot operations	В	-	1	(O)(M) Any in excess of one may be inoperative, provided:					
					(a) The associated heater is verified to operate normally prior to each flight,					
					(b) Flight is conducted under VMC, and					
					(c) The aeroplane is not operated at any time in known or forecast icing conditions.					
		В	-	1	Any in excess of one may be inoperative provided the associated heater(s) is(are) considered inoperative.					
	(b) Two pilot operations	В	-	1	(O)(M) Any in excess of one may be inoperative, provided:					
					(a) The associated heater is verified to operate normally prior to each flight,					
					(b) Flight is conducted under VMC, and					
					(c) The aeroplane is not operated at any time in known or forecast icing conditions.					
		В	-	1	Any in excess of one may be inoperative provided the associated heater(s) is(are) considered inoperative.					

ATA C	hapter: 30 Ice and Rain Prote	ction							
(1) Svs	stem & Sequence Numbers	(2) F	Rectific	cation	Interval				
ITEM			(3) Number installed						
				(4) N	lumber required for dispatch				
ΑΤΑ					(5) Remarks or Exceptions				
30-31	Static Port Heaters (JAR-OPS 1.675(a))				<u>Note</u> : Static port heating is required to be operative for RVSM operations.				
	(1) Day VFR operations								
	(a) Single pilot operations	D	-	0	One or more may be inoperative provided:				
	operations				(a) Flight is conducted under VMC, and				
					(b) The aeroplane is not operated at any time in known or forecast icing conditions.				
	(b) Two pilot operations	D	-	0	One or more may be inoperative provided:				
					(a) Flight is conducted under VMC, and				
					(b) The aeroplane is not operated at any time in known or forecast icing conditions.				
	(2) IFR or Night operations								
	(a) Single pilot operations	В	-	1	(O)(M) Any in excess of one may be inoperative provided:				
					(a) The remaining static port heater is verified to operate normally prior to each flight,				
					(b) Flight is conducted under VMC, and				
					(c) The aeroplane is not operated at any time in known or forecast icing conditions.				
	(b) Two pilot operations	В	-	1	(O)(M) Any in excess of one may be inoperative provided:				
					(a) The remaining static port heater is verified to operate normally prior to each flight,				
					(b) Flight is conducted under VMC, and				
					(c) The aeroplane is not operated at any time in known or forecast icing conditions.				

(1) Svs	tem & Sequence Numbers	(2) F	Rectifi	cation	Interval					
ÎTÊM			(3) Number installed							
ATA					Number required for dispatch (5) Remarks or Exceptions					
30-32	Stall Warning Vane Heaters (If installed) (JAR-OPS 1.675(a))	В	-	0	One or more may be inoperative for day VMC only provided the aeroplane is not operated at any time in known or forecast icing conditions.					
30-40	Equivalent means to being equipped with windshield wipers (If installed) (JAR-OPS 1.645)	C	-	0	<ul> <li>May be inoperative provided:</li> <li>(a) The aeroplane is not operated in known or forecast precipitation within the arrival and departure areas, and</li> <li>(b) When low visibility conditions are known or forecast, approach or take-off minima do not require their use.</li> <li><u>Note 1:</u> Check Flight Manual for minimum required equipment for Cat II or III approaches and low visibility take-offs.</li> <li><u>Note 2:</u> Equivalent systems may include rain repellent or other systems.</li> <li><u>Note 3:</u> A deactivated rain repellent system can be considered as a non-installed system.</li> </ul>					
30-41	Windshield Heating / De-icing Systems (JAR-OPS 1.675(a))									
	(1) Window Heat Indicating System	C	-	0	(O) One or more may be inoperative provided an alternate procedure is established and used to ensure correct operation.					
30-42	Windshield Wipers (JAR-OPS 1.645)									
	(1) Wipers	С	-	0	May be inoperative provided the aeroplane is not operated in known or forecast precipitation within the arrival and departure areas. <u>Note:</u> Check Flight Manual for minimum required equipment for Cat II or III approaches and low visibility take-offs.					

ATA Cł	napter: 30 Ice and Rain Prote	ection						
(1) Sys	tem & Sequence Numbers	(2) F	Rectific	cation	Interval			
ITEM		(3) Number installed						
				(4) N	Number required for dispatch			
					(5) Remarks or Exceptions			
ATA								
30-42	Windshield Wipers (JAR-OPS 1.645) (cont.)							
	(2) High Speed Function	С	-	0	May be inoperative provided the associated low speed function is operative.			
	(3) Low Speed Function	С	-	0	May be inoperative provided the associated high speed function is operative.			
30-61	Propeller De-ice/Anti-ice Systems (If installed) (JAR-OPS 1.675(a))							
	(1) Monitoring Systems	В	-	0	One or more may be inoperative for day VMC only, provided the aeroplane is not operated at any time in known or forecast icing conditions.			
30-80	Ice Evidence Probes (visual indicator) (If installed) <i>(JAR-OPS 1.675(a))</i>	В	-	0	One or more may be inoperative for day VMC only, provided the aeroplane is not operated at any time in known or forecast icing conditions.			
30-80	Ice Detection System (If installed) (JAR-OPS 1.675(b))	В	-	0	(O) May be inoperative provided alternate procedures are established and used to illuminate ice accretion on an outside surface visible from the flight deck.			

ATA Ch	napter: 31 Indicating / Record	ing Sy	/stem	S	
(1) Sys ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Number required for dispatch
ΑΤΑ				(4)	(5) Remarks or Exceptions
31-00	Cosmic Radiation Detection Equipment (If installed) (JAR-OPS 1.680)	D	-	0	May be inoperative provided the flight altitude is limited to 49,000 ft.
31-21	Clocks (JAR-OPS 1.650/1.652)	С	-	0	<ul> <li>May be inoperative provided an accurate timepiece is operative on the flight deck indicating the time in hours, minutes and seconds.</li> <li><u>Note 1:</u> The above is applicable only to those aeroplanes where the clock has no implication on other equipment e.g. FDR, otherwise the effects on such other systems must be considered.</li> <li><u>Note 2:</u> On the basis that the timepiece required does not need to be approved, an accurate pilot's wristwatch which indicates hours, minutes and seconds would be acceptable.</li> </ul>
31-31	Flight Data Recorder (FDR) (If installed) ( <i>JAR-OPS 1.715/720/725</i> )	A	-	0	<ul> <li>One or more may be inoperative provided:</li> <li>(a) The aeroplane does not exceed 8 further consecutive flights with the FDR inoperative,</li> <li>(b) A maximum of 72 hours have elapsed since the FDR was found to be inoperative, and</li> <li>(c) Any Cockpit Voice Recorder required to be carried is operative.</li> <li><u>Note 1:</u> This alleviation is not applicable to combined CVR/FDRs. For those combined systems, see the entries for combination recorders in item 31-31.</li> <li>(cont.)</li> </ul>

ATA Ch	napter: 31 Indicating / Record	ding Sy	/stem	S				
	tem & Sequence Numbers	(2) F	(2) Rectification Interval (3) Number installed					
ITEM		_	(3) N					
				(4) N	lumber required for dispatch			
ΑΤΑ					(5) Remarks or Exceptions			
31-31	Flight Data Recorder (If installed) (JAR-OPS 1.715/720/725) (cont.)				<ul> <li><u>Note 2:</u> The flight data recorder is considered to be inoperative when any of the following conditions exist:</li> <li>(i) Loss of the flight recording function is evident to the flight crew during the pre-flight check e.g. by means of a system status monitor, or</li> <li>(ii) The need for maintenance has been identified by the system monitors, where available, with the setting of an indicator and the cause of that setting has not been determined, or</li> </ul>			
					<ul> <li>(iii) Analyses of recorded data or maintenance actions have shown that more than 5% of the total number of individual parameters (variable and discrete) required to be recorded for the particular aircraft, are not being recorded properly.</li> </ul>			
					<u>Note 3:</u> Where improper recording affects 5% of the parameters or less, timely corrective action will need to be taken by the aeroplane operator in accordance with approved maintenance procedures.			
31-31	Combination Recorder (If installed) (JAR-OPS 1.727)	A	1	0	If one combination recorder is installed, the flight data recorder or the cockpit voice recorder function may be inoperative provided:			
					(a) The other function, where required, is operative,			
					(b) The aeroplane does not exceed 8 further consecutive flights with the inoperative function, and			
					(c) A maximum of 72 hours have elapsed since the inoperative function was found.			
					(cont.)			

ATA Cł	hapter: 31 Indicating / Record	ling Sy	/stem	S					
(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ITEM		( )	(3) Number installed						
				(4) N	lumber required for dispatch				
					(5) Remarks or Exceptions				
ATA									
31-31	Combination Recorder (If installed) <i>(JAR-OPS 1.727)</i> (cont.)	A	2	1	If two combination recorders are installed, one may be inoperative provided: (a) The other combination recorder is operative,				
					and				
l					(b) A maximum of 10 days have elapsed since the combination recorder was found to be inoperative.				
					Note 1: A combination recorder is a single flight recorder that combines the functions of two or more accident recording functions in a single, crash protected box.				
					<u>Note 2:</u> The flight data recorder is considered to be inoperative when any of the following conditions exist:				
l					<ul> <li>Loss of the flight recording functions is evident to the flight crew during the pre-flight check e.g. by means of a system status monitor, or</li> </ul>				
					<ul> <li>(ii) The need for maintenance has been identified by the system monitors, where available, with the setting of an indicator and the cause of that setting has not been determined, or</li> </ul>				
					(iii) Analyses of recorded data or maintenance actions have shown that more than 5% of the total number of individual parameters (variable and discrete) required to be recorded for the particular aircraft, are not being recorded properly.				
					<u>Note 3:</u> Where improper recording affects 5% of the parameters or less, timely corrective action will need to be taken by the aeroplane operator in accordance with approved maintenance procedures.				

ATAC	napter: 31 Indicating / Record	ung Sy	/stem	5	
(1) Sys	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM			(3) N	lumbe	er installed
				(4) 1	Number required for dispatch
					(5) Remarks or Exceptions
ATA					
31-31	Quick Access Recorder (QAR) (JAR-OPS 1.037) <i>(If installed)</i>	С	1	0	(O)(M) May be inoperative for Flight Data Monitoring (FDM) purposes, provided approved alternate procedures, if appropriate to other programmes using associated data, are established and used.
		D	1	0	(M) May be inoperative provided procedures do not require its use.

ATA Ch	napter: 33 Lights				
(1) Syst ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Number required for dispatch (5) Remarks or Exceptions
33-10	Flight Deck Lighting (JAR-OPS 1.640)	с	-	0	One or more may be inoperative for daylight operations.
		С	-	-	Individual lights may be inoperative provided:
					<ul> <li>Sufficient lighting is operative to make each required instrument, control, and other device for which it is provided easily readable,</li> </ul>
					(b) Sufficient flight deck emergency lighting is operative, and
					(c) Lighting configuration at dispatch is acceptable to the flight crew.
		С	-	-	Co-pilot's station instrument lights may be inoperative for single pilot operation, provided no co-pilot's station instrument is required to be used by the pilot.
33-20	Passenger Compartment Lighting	с	-	-	Individual lights may be inoperative provided:
	(JAR-OPS 1.640)				(a) Lighting is acceptable for the cabin crew to perform their required duties, and
					(b) Inoperative lights are not part of the cabin emergency lighting.
					<u>Note</u> : For cabin emergency lighting, refer to item 33-50.
		D	-	-	May be inoperative provided passengers are not carried.
					Note: Reading lights are not included as they are considered as non-safety related items.

(1) 0:	tom & Coquence Numbers			otion	latan (al			
	tem & Sequence Numbers	(2) F		ectification Interval (3) Number installed				
ITEM		-	(3) N					
				(4) 1	Number required for dispatch			
ATA					(5) Remarks or Exceptions			
AIA								
33-20	Cabin Signs ('Fasten Seat Belt' & 'No Smoking' Signs) <i>(JAR-OPS 1.731)</i>	С	-	-	(M)(O) One or more may be inoperative provided no passenger seat, crew member seat or lavatory is occupied from which a 'No Smoking/Fasten Seat Belt' sign is not readily legible.			
		С	-	-	(M)(O) 'No Smoking/Fasten Seat Belt' signs may be inoperative and the affected passenger seat(s), cabin crew seat(s) or lavatories may be occupied provided:			
					<ul> <li>(a) The PA system is operative and can be clearly heard throughout the cabin during flight, and</li> </ul>			
					(b) A procedure is used to notify passengers when the seat belts must be fastened and smoking is prohibited as appropriate.			
		С	-	-	May be inoperative provided passengers are not carried.			
33-29	Lights for Seaplanes and Amphibians (JAR-OPS 1.640)	-	-	-	As required by applicable international regulations.			
33-40	Ice Evidence Probe Light (visual indicator)	D	-	0	May be inoperative for daylight operations.			
	(If installed) (JAR-OPS 1.675(a))	В	-	0	May be inoperative for night operations provided the aeroplane is not operated at any time in known or forecast icing conditions.			
					Note: See ATA 30 for definition of icing conditions.			

ATA Ch	hapter: 33 Lights				
(1) Suct	em & Sequence Numbers	(2) □	Pactifi	cation	Interval
ITEM	(1) System & Sequence Numbers				er installed
		-	(0).		Number required for dispatch
				( )	(5) Remarks or Exceptions
ATA					
33-41	Navigation/Position Lights	С	-	0	One or more may be inoperative for daylight
	(JAR-OPS 1.640)				operations.
		С	-	-	Any in excess of those required may be inoperative
					for night operations.
33-42	Anti-Collision Light				
	Systems				
	(JAR-OPS 1.640)				
	(1) Fuselage Light	с	_	1	(O) Either the upper or the lower fuselage lights
	(Beacon or Strobe Type)	Ŭ			may be inoperative provided all white wing-tip
					strobe lights are operative.
					$(\mathbf{O})$ On a sum of the interaction (as the limit $(\mathbf{O})$
		С	-	0	(O) One or more may be inoperative for daylight operations provided all white wing-tip strobe lights
					are operative.
					Note: If the fuselage anti-collision light(s) is/are
					inoperative, alternate procedures are
					established and used when the aircraft is on the ground with the engine(s) running.
	(2) Wing-Tip Strobe Light	С	-	0	One or more may be inoperative.
	(If installed)				
33-43	Wing Illumination Lights	D	_	0	One or more may be inoperative for daylight
	(JAR-OPS 1.675(b))				operations.
		В	-	0	(O) One or more may be inoperative for night
					operations provided an alternate means is
					operative and used to illuminate ice accretion on an outside surface visible from the flight deck.

ATA Cł	napter: 33 Lights				
(1) Sys ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Jumber required for dispatch (5) Remarks or Exceptions
33-44	Landing Lights (JAR-OPS 1.640)	В	-	-	50% of landing lights may be inoperative for night operations.
		С	-	0	One or more may be inoperative for daylight operations.
33-50	Cabin Emergency Lighting (JAR-OPS 1.815)				
	<ol> <li>Overhead Emergency Lighting (each aisle)</li> </ol>	В	-	-	A maximum of one in four consecutive overhead emergency lights (or light assemblies) may be inoperative.
					<u>Note:</u> For aeroplanes which have two rows of lights per aisle (i.e. mounted on the overhead bins) then the above alleviation is acceptable for each row of lights but the inoperative lights must not be directly opposite each other.
	(2) EXIT signs	С	-	-	Up to 50% of the bulbs may be inoperative in one or more signs.
		-	-	-	One may be inoperative provided the associated door/exit is considered inoperative. Refer to item 52-22.
					<u>Note:</u> If any twin overwing exits are served by a single sign both exits should be considered inoperative.
	(3) Exit Area Lighting	В	-	-	One may be inoperative.

ATA Cł	napter: 33 Lights								
	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ITEM			(3) N		er installed				
				(4) N	Number required for dispatch				
ATA					(5) Remarks or Exceptions				
33-50	Cabin Emergency Lighting (JAR-OPS 1.815)								
	(4) Floor Proximity Lighting								
	(a) Individual Lights/strips	В	-	-	Lights/strips may be inoperative provided:				
					(a) All lights/strips marking right angle intersection, including cross aisles and overwing exits, are operative,				
					(b) Along each aisle axis, all lights/strips within one meter of lights/strips marking right angle intersections are operative, and				
					(c) Along each aisle axis, for a particular lights/strips configuration, specific lights/strips are operative as agreed by the Authority.				
	(4) Floor Proximity Lighting (cont.)								
	(b) EXIT Markers	-	-	-	One may be inoperative provided the associated door/exit is considered inoperative. Refer to item 52-22.				
33-50	Exterior Emergency Lighting Systems (JAR-OPS 1.815)	В	-	0	One or more may be inoperative for daylight operations.				
	(1) Escape Slide Lighting	В	-	0	One or more may be inoperative for daylight operations.				
		-	-	-	One may be inoperative for night operations provided the associated door/exit is considered inoperative. Refer to item 52-22.				
	(2) Overwing Escape Route Lighting	В	-	-	One or more may be inoperative for daylight operations.				
		-	-	-	One may be inoperative for night operations provided the associated door/exit is considered inoperative. Refer to item 52-22.				

<ul> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(4) B</li> <li>(5) C</li> <li>(6) C</li> <li>(7) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(2) C</li> <li>(2) C</li> <li>(3) C</li> <li>(4) C</li> <li>(5) C</li> <li>(7) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(10) C</li> <li>(11) Single pilot operation</li> <li>(11) Single pilot operation</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C<!--</th--><th>ATA Cł</th><th>hapter: 34 Navigation</th><th></th><th></th><th></th><th></th></li></ul>	ATA Cł	hapter: 34 Navigation								
ITEM       (3) Number installed         ATA       (4) Number required for dispatch         34-10       Airspeed Indicators (JAR-OPS 1.650/1.652)       (5) Remarks or Exceptions         (1)       Single pilot operation       B       -       1       Any in excess of one may be inoperative provide the operative airspeed indicator is on the commander's side.         (2)       Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (3)       Standby airspeed indicator       B       -       0       May be inoperative provided both main airspeed indicator displays (tape) must be operative.         34-10       Altimeters (JAR-OPS 1.650/1.652)       B       -       0       May be inoperative provided both main airspeed indicator         (1)       Single pilot operation       B       -       1       For VFR operations, any in excess of one may be inoperative altimeter is on the commander's side.         (2)       Two pilot operation       C       -       2       Any in excess of two may be inoperative for IFR operatives altimeter is one the commander's side.         (2)       Two pilot operation       C       -       2       Any in excess of two may be inoperative provide (a)       One altimeters operate independently, and       (b)       The required altimeters operate independently	(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ATA         34-10       Airspeed Indicators (JAR-OPS 1.650/1.652)         (1)       Single pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (3)       Standby airspeed indicator         (3)       Standby airspeed indicator         (4)       Number required for dispatch         (5)       Remarks or Exceptions         (2)       Two pilot operation         (2)       Two pilot operation         (3)       Standby airspeed indicator         (4)       Note:         (3)       Standby airspeed indicator         (1)       Single pilot operation         (2)       Two pilot operation         (3)       Standby airspeed         (1)       Single pilot operation         (2)       Two pilot operation         (3)       Standby airspeed         (1)       Single pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (2)       Two pilot operation         (2)       Two p			(_) .							
ATA       (5) Remarks or Exceptions         34-10       Airspeed Indicators (JAR-OPS 1.650/1.652)       B       -       1       Any in excess of one may be inoperative provide the operative airspeed indicator is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (3) Standby airspeed indicator       B       -       0       May be inoperative provided both main airspeed indicator         34-10       Altimeters (JAR-OPS 1.650/1.652)       B       -       0       May be inoperative of all WMC only provided the operative airspeed indicators are operative.         (2) Two pilot operation       B       -       1       For VFR operations, any in excess of one may be inoperative alimeter is on the commander's side.         (1) Single pilot operation       B       -       1       For VFR operations, any in excess of one may be inoperative alimeter is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide the operative alimeter is operative for each pilot, (b) The required alimeters operate independently, and         (c) At least one of the above is pneumatic, or servo pneumatic alimeter.       C       -       2				(0).						
ATA       34-10       Airspeed Indicators (JAR-OPS 1.650/1.652)       Image: Constraint of the operative array be inoperative provide the operative airspeed indicator is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (3) Standby airspeed indicator       B       -       0       May be inoperative provided both main airspeed indicator displays (tape) must be operative.         34-10       Altimeters (JAR-OPS 1.650/1.652)       B       -       0       May be inoperations, any in excess of one may be inoperative for law VMC only provided the operative altimeter is on the commander's side.         (2) Two pilot operation       B       -       1       For VFR operations, any in excess of one may be inoperative altimeter is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative for IFR operations.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide (a) One altimeter is operative for each pilot, (b) The required altimeters operate independently, and (c) At least one of the above is pneumatic, or servo pneumatic altimeter.					( . , .					
(JAR-OPS 1.650/1.652)       B       -       1       Any in excess of one may be inoperative provide the operative airspeed indicator is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (3) Standby airspeed indicator       B       -       0       May be inoperative provided both main airspeed indicators are operative.         34-10       Altimeters (JAR-OPS 1.650/1.652)       B       -       0       May be inoperations, any in excess of one may be inoperative for lay VMC only provided the operative for day VMC only provided the operative for day VMC only provided the operations.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative for IFR operations.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide (a) One altimeter is operative for each pilot, (b) The required altimeters operate independently, and       (c) At least one of the above is pneumatic, or servo pneumatic altimeter.	ATA									
(JAR-OPS 1.650/1.652)       B       -       1       Any in excess of one may be inoperative provide the operative airspeed indicator is on the commander's side.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide operative airspeed indicators are at each pilot's station.         (3) Standby airspeed indicator       B       -       0       May be inoperative provided both main airspeed indicators are operative.         34-10       Altimeters (JAR-OPS 1.650/1.652)       B       -       0       May be inoperations, any in excess of one may be inoperative for lay VMC only provided the operative for day VMC only provided the operative for day VMC only provided the operations.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative for IFR operations.         (2) Two pilot operation       C       -       2       Any in excess of two may be inoperative provide (a) One altimeter is operative for each pilot, (b) The required altimeters operate independently, and       (c) At least one of the above is pneumatic, or servo pneumatic altimeter.										
<ul> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) Standby airspeed</li> <li>(3) Standby airspeed</li> <li>(3) Standby airspeed</li> <li>(3) Standby airspeed</li> <li>(4) B</li> <li>(5) C</li> <li>(6) C</li> <li>(7) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(2) Two pilot operation</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(1) Single pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) C</li> <li>(4) C</li> <li>(5) C</li> <li>(6) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(10) C</li> <li>(11) Single pilot operation</li> <li>(12) Two pilot operation</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(10) C</li> <li>(10) C</li> <li>(10) C</li> <li>(10) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(10) C</li> <li>(10) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(10) C</li> <li>(10) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19) C</li> <li>(19)</li></ul>	34-10									
<ul> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(4) B</li> <li>(5) C</li> <li>(6) C</li> <li>(7) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(1) Single pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(1) C</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) C</li> <li>(4) C</li> <li>(5) C</li> <li>(6) The required altimeters operate independently, and</li> <li>(7) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>		(1) Single pilot operation	В	-	1					
<ul> <li>(3) Standby airspeed indicator displays (tape) must be operative.</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(3) Standby airspeed indicator</li> <li>(4) B</li> <li>(5) May be inoperative provided both main airspeed indicators are operative.</li> <li>(4) Altimeters (<i>JAR-OPS 1.650/1.652</i>)</li> <li>(1) Single pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) C</li> <li>(4) C</li> <li>(5) C</li> <li>(6) C</li> <li>(7) C</li> <li>(7) C</li> <li>(8) C</li> <li>(9) C</li> <li>(10) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(17) C</li> <li>(17) C</li> <li>(18) C</li> <li>(18) C</li> <li>(19) C</li> <li>(11) C</li> <li>(11) C</li> <li>(12) C</li> <li>(13) C</li> <li>(14) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(15) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C</li> <li>(16) C&lt;</li></ul>		(2) Two pilot operation	С	-	2					
<ul> <li>indicator</li> <li>indicator</li> <li>indicator</li> <li>indicator</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> <li>indicators are operative.</li> </ul>						airspeed indicator displays (tape) must be				
(JAR-OPS 1.650/1.652)B-1For VFR operations, any in excess of one may be inoperative for day VMC only provided the operative altimeter is on the commander's side.(1) Single pilot operationC-2Any in excess of two may be inoperative for IFR operations.(2) Two pilot operationC-2Any in excess of two may be inoperative provide (a) One altimeter is operative for each pilot, (b) The required altimeters operate independently, and(c) At least one of the above is pneumatic, or servo pneumatic altimeter.			В	-	0	May be inoperative provided both main airspeed indicators are operative.				
<ul> <li>(2) Two pilot operation</li> <li>C - 2</li> <li>Any in excess of two may be inoperative for IFR operations.</li> <li>(2) Two pilot operation</li> <li>C - 2</li> <li>Any in excess of two may be inoperative for IFR operations.</li> <li>(a) One altimeter is operative for each pilot,</li> <li>(b) The required altimeters operate independently, and</li> <li>(c) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>	34-10									
<ul> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(2) Two pilot operation</li> <li>(3) One altimeter is operative for each pilot,</li> <li>(a) One altimeter is operative for each pilot,</li> <li>(b) The required altimeters operate independently, and</li> <li>(c) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>		(1) Single pilot operation	В	-	1					
<ul> <li>(a) One altimeter is operative for each pilot,</li> <li>(b) The required altimeters operate independently, and</li> <li>(c) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>			С	-	2					
<ul> <li>(b) The required altimeters operate independently, and</li> <li>(c) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>		(2) Two pilot operation	с	-	2	Any in excess of two may be inoperative provided:				
<ul> <li>independently, and</li> <li>(c) At least one of the above is pneumatic, or servo pneumatic altimeter.</li> </ul>						(a) One altimeter is operative for each pilot,				
servo pneumatic altimeter.										
Note 1: For aeroplanes fitted with EFIS, the										
altimeter displays (tape) must be operative.						altimeter displays (tape) must be				
(cont.)						(cont.)				

(cont.)       RVSM operations.         (3) Servo Pneumatic Altimeter Mode (If installed)       C       -       0       May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed) (JAR-OPS 1.650/1.652)       -       -       Refer to manufacturer's MMEL and Flight Manual (2) Non EFIS Indicator         (2)       Non EFIS Indicator (If installed) (JAR-OPS 1.650/1.652)       -       -       Refer to manufacturer's MMEL and Flight Manual (2) Non EFIS Indicator         34-10       OAT Indicator (If installed) (JAR-OPS 1.650/1.652)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator (If installed) (JAR-OPS 1.650/1.652)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)       B       -       0         (1)       Aeroplane not fitted with a Standby Attitude Indicator       B       -       0       May be inoperative for day VMC only, provided to slip indicator is operative.         (b) Two pilot operation       B       -       1       Commander's indicator may be inoperative for d VMC only provided both attitude indicators are operative. <th>ATA Cł</th> <th>napter: 34 Navigation</th> <th></th> <th></th> <th></th> <th></th>	ATA Cł	napter: 34 Navigation								
ITEM       (3) Number installed         ATA       (4) Number required for dispatch         34-10       Altimeters (JAR-OPS 1.650/1.652) (cont.)       Note 2: Two independent altitude measurement systems are required to be operative for RVSM operations.         (3) Servo Pneumatic Altimeter Mode (If installed)       C       -       0       May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed)       -       -       Refer to manufacturer's MMEL and Flight Manual (JAR-OPS 1.650/1.652)         (1)       EFIS speed tape (Mach display)       -       -       Refer to manufacturer's MMEL and Flight Manual (If installed)         34-10       OAT Indicator (If installed)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Tum and Slip Indicator / Tum Co-ordinators (If installed)       C       -       0       May be inoperative for day VMC only, provided to peration         (a) Single pilot operation       B       -       0       May be inoperative.       -         (b) Two pilot operation       B       -       1       Commander's indicator may be inoperative for day VMC only, provided to vMC only provided both attitude indicators are operative.	(1) Sve	tem & Sequence Numbers	(2) Rectification Interval							
ATA       (4) Number required for dispatch         34-10       Attimeters         (JAR-OPS 1.650/1.652)       (C         (3) Servo Pneumatic       Note 2:         Attimeter Mode       C         (If installed)       C         34-10       Mach Indicators         (If installed)       C         (JAR-OPS 1.650/1.652)       -         (I) EFIS speed tape       -         (Mach display)       -         (2) Non EFIS Indicator       -         (If installed)       -         (JAR-OPS 1.650/1.652)       -         (1) EFIS speed tape       -         (Mach display)       -         (2) Non EFIS Indicator       -         (If installed)       -         (JAR-OPS 1.650/1.652)       -         (2) Non EFIS Indicator       -         (If installed)       -         (JAR-OPS 1.650/1.652)       -         (If installed)       -         (JAR-OPS 1.650/1.652)       -         (I) Aeroplane not fitted       -         (a) Single pilot       B         (b) Two pilot operation       B         (b) Two pilot operation       B         (b) Two pilot operation<										
ATA       (5) Remarks or Exceptions         34-10       Attimeters (JAR-OPS 1.650/1.652) (cont.)       Note 2: Two independent altitude measurement systems are required to be operative for RVSM operations.         (3)       Servo Pneumatic Altimeter Mode (If installed)       C       -       0       May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed) (JAR-OPS 1.650/1.652)       -       -       Refer to manufacturer's MMEL and Flight Manual (Mach display)         (2)       Non EFIS Indicator (If installed) (JAR-OPS 1.650/1.652)       -       -       Refer to manufacturer's MMEL and Flight Manual (If installed)         34-10       OAT Indicator (If installed) (JAR-OPS 1.650/1.652)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)       E       0       May be inoperative for day VMC only, provided to slip indicator is operative.         (a) Single pilot operation       B       -       0       May be inoperative for day VMC only, provided to slip indicator is operative.         (b) Two pilot operation       B       -       1       Commander's indicator may be inoperative for dy VMC only provided both attitude indicators are operative.				(0) 1						
ATA       34-10       Altimeters (JAR-OPS 1.650/1.652) (cont.)       Note 2: Two independent altitude measurement systems are required to be operative for RVSM operations.         (3) Servo Pneumatic Altimeter Mode (If installed)       C       -       0       May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed)       C       -       0       May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed)       -       -       Refer to manufacturer's MMEL and Flight Manual (Mach display)         (2)       Non EFIS Indicator       -       -       Refer to manufacturer's MMEL and Flight Manual (JAR-OPS 1.650/1.652)         34-10       OAT Indicator (If installed)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed)       B       -       0       May be inoperative for day VMC only, provided to slip indicator is operative.         (a) Single pilot operation       B       -       0       May be inoperative for day VMC only, provided to slip indicator is operative.         (b) Two pilot operation       B       -       1       Commander's indicator may be inoperative for day VMC only provide					(-) 1					
<ul> <li>34-10 Altimeters (JAR-OPS 1.650/1.652) (cont.)</li> <li>(3) Servo Pneumatic Altimeter Mode (If installed)</li> <li>C - 0 May be inoperative provided the altimeter remain in the pneumatic mode and the transponder remains operative.</li> <li>34-10 Mach Indicators (If installed) (JAR-OPS 1.650/1.652)</li> <li>(1) EFIS speed tape (Mach display)</li> <li>(2) Non EFIS Indicator</li> <li>(2) Non EFIS Indicator</li> <li>(2) Non EFIS Indicator</li> <li>(1) Turn and Slip Indicator / Turn Co-ordinators (If installed)</li> <li>(JAR-OPS 1.650/1.652)</li> <li>(1) Aeroplane not fitted with a Standby Attitude Indicator</li> <li>(a) Single pilot operation</li> <li>(b) Two pilot operation</li> <li>B - 0</li> <li>May be inoperative for day VMC only, provided to VMC only provided both attitude indicators are operative.</li> </ul>	ΛΤΛ									
(JAR-OPS 1.650/1.652) (cont.)										
Altimeter Mode (If installed)       in the pneumatic mode and the transponder remains operative.         34-10       Mach Indicators (If installed) (JAR-OPS 1.650/1.652)       in the pneumatic mode and the transponder remains operative.         (1)       EFIS speed tape (Mach display)       -       -       Refer to manufacturer's MMEL and Flight Manual (Mach display)         (2)       Non EFIS Indicator       -       -       Refer to manufacturer's MMEL and Flight Manual (Mach display)         34-10       OAT Indicator (If installed) (JAR-OPS 1.650/1.652)       C       -       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)       -       0       May be inoperative for day VMC only, provided to operation         (a)       Single pilot operation       B       -       0       May be inoperative for day VMC only, provided to vilip indicator is operative.         (b)       Two pilot operation       B       -       1       Commander's indicator may be inoperative for day VMC only provided both attitude indicators are operative.	34-10	(JAR-OPS 1.650/1.652)				systems are required to be operative for				
(If installed) (JAR-OPS 1.650/1.652)Refer to manufacturer's MMEL and Flight Manual (Mach display)(1) EFIS speed tape (Mach display)Refer to manufacturer's MMEL and Flight Manual (2) Non EFIS Indicator(2) Non EFIS Indicator (If installed) (JAR-OPS 1.650/1.652)Refer to manufacturer's MMEL and Flight Manual temperature indication is operative provided another air temperature indication is operative that is convertible to OAT.34-10Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)C-0(1) Aeroplane not fitted with a Standby Attitude IndicatorB-0May be inoperative for day VMC only, provided to slip indicator is operative.(b) Two pilot operationB-1Commander's indicator may be inoperative for d vMC only provided both attitude indicators are operative.		Altimeter Mode	С	-	0	•				
(Mach display)       .       .       .       Refer to manufacturer's MMEL and Flight Manual Standby Attitude Indicator         34-10       OAT Indicator (If installed) (JAR-OPS 1.650/1.652)       C       .       0       May be inoperative provided another air temperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)       L       I       I         (1)       Aeroplane not fitted with a Standby Attitude Indicator       B       .       0       May be inoperative for day VMC only, provided to operation         (b)       Two pilot operation       B       .       1       Commander's indicator may be inoperative for day VMC only provided to operative.	34-10	(If installed)								
<ul> <li>34-10 OAT Indicator (If installed) (JAR-OPS 1.650/1.652)</li> <li>34-10 Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)</li> <li>(1) Aeroplane not fitted with a Standby Attitude Indicator</li> <li>(a) Single pilot operation</li> <li>(b) Two pilot operation</li> <li>(c) A and the standby attitude indicator is operative.</li> <li>(b) Two pilot operation</li> <li>(c) A and the standby attitude indicator is operative.</li> <li>(c) May be inoperative provided another air temperature indicator is operative that is convertible to OAT.</li> <li>(c) A another attitude indicator</li> <li>(c) A another attitude indicator</li> <li>(c) A another attitude indicator</li> <li>(c) A another attitude indicator</li> <li>(c) A another attitude indicator is operative.</li> <li>(c) Two pilot operation</li> <li>(c) A another attitude indicator are operative.</li> </ul>			-	-	-	Refer to manufacturer's MMEL and Flight Manual.				
(If installed) (JAR-OPS 1.650/1.652)       Imperature indication is operative that is convertible to OAT.         34-10       Turn and Slip Indicator / Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)       Imperature indication is operative that is convertible to OAT.         (1)       Aeroplane not fitted with a Standby Attitude Indicator       Imperature indicator         (a)       Single pilot operation       B       -       0         (b)       Two pilot operation       B       -       1         Commander's indicator may be inoperative for day VMC only provided both attitude indicators are operative.       1		(2) Non EFIS Indicator	-	-	-	Refer to manufacturer's MMEL and Flight Manual.				
Turn Co-ordinators (If installed) (JAR-OPS 1.650/1.652)Image: Second secon	34-10	(If installed)	С	-	0	temperature indication is operative that is				
with a Standby Attitude IndicatorB-0May be inoperative for day VMC only, provided to slip indicator is operative.(a) Single pilot operationB-0May be inoperative for day VMC only, provided to slip indicator is operative.(b) Two pilot operationB-1Commander's indicator may be inoperative for day VMC only provided both attitude indicators are operative.	34-10	Turn Co-ordinators (If installed)								
operationslip indicator is operative.(b) Two pilot operationB-1Commander's indicator may be inoperative for d VMC only provided both attitude indicators are operative.		with a Standby Attitude								
VMC only provided both attitude indicators are operative.			В	-	0	May be inoperative for day VMC only, provided the slip indicator is operative.				
B - 1 Co-pilot's indicator may be inoperative provided		(b) Two pilot operation	В	-	1					
both attitude indicators are operative.			В	-	1	Co-pilot's indicator may be inoperative provided both attitude indicators are operative.				
(cont.)						(cont.)				

ATA Ch	napter: 34 Navigation				
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ÎTÉM	·	~ /			er installed
				(4) N	Number required for dispatch
					(5) Remarks or Exceptions
ATA					
34-10	Turn and Slip Indicator / Turn Co-ordinators (If installed) (cont.) (JAR-OPS 1.650/1.652)				
	(2) Aeroplane fitted with a Standby Attitude Indicator				
	(a) Single pilot operation	С	-	0	May be inoperative provided the slip indicator and standby attitude indicator are operative.
	(b) Two pilot operation	С	-	1	Any in excess of one may be inoperative.
		В	-	0	May be inoperative provided one slip indicator and three independent attitude indicators are operative.
34-10	Vertical Speed Indicators (VSI) (JAR-OPS 1.650/1.652)				
	(1) Single pilot operation	С	-	1	Any in excess of one may be inoperative provided the operative VSI is on the commander's side.
	(2) Two pilot operation	С	-	1	Any in excess of one may be inoperative for day VMC only, provided the operative VSI is on the commander's or co-pilot's side.
34-15	Altitude Alerting System (JAR-OPS 1.660)	В	-	0	(O) May be inoperative provided an autopilot with an altitude hold is operative.
					Note: One altitude alerting system is required to be operative for RVSM operations.
					(cont.)

	tem & Sequence Numbers	(2) F			Interval
ITEM			(3) N		er installed Number required for dispatch
				(4) 1	(5) Remarks or Exceptions
ATA					
34-20	Stabilised Direction Indicators (JAR-OPS 1.650/1.652)				
	(1) Single Pilot operations				
	(a) Horizontal Situation Indicator (HSI)	В	-	0	One or more may be inoperative provided:
					(a) The commander's RMI is operative,
					(b) Procedures are not dependant on the use of the HSI, and
					(c) The directional gyro is operative.
	(b) Directional Gyros	С	-	1	Any in excess of one may be inoperative, provided the HSI or RMI is operative on the commander's side.
	(c) Radio Magnetic Indicators (RMI)	В	-	0	May be inoperative provided:
					(a) The commander's HSI is operative, and
					(b) Procedures are not dependant upon the use of the RMI.
	(2) Two Pilot operations				
	(a) Horizontal Situation Indicator (HSI)				
	(i) Commander's side	В	-	1	Commander's indicator may be inoperative provided:
					(a) Procedures are not dependant upon the use of the remaining HSI,
					(b) Both directional gyros are operative, and
					(c) An independent stabilised heading indication is operative on each pilot's panel.
					(cont.)

ATA Cł	hapter: 34 Navigation				
(1) Sys	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ÎTÊM				Jumbe	er installed
				(4) N	Number required for dispatch
ΑΤΑ					(5) Remarks or Exceptions
/////					
34-20	Stabilised Direction Indicators (cont.) (JAR-OPS 1.650/1.652)				
	(2) Two Pilot operations				
	(a) Horizontal Situation Indicator(HSI)				
	(ii) Co-Pilot's side	С	-	1	Co-Pilot's indicator may be inoperative provided:
					(a) Procedures are not dependant upon the use of the remaining HSI,
					(b) Both directional gyros are operative, and
					(c) An independent stabilised heading indication is operative on each pilot's panel.
	(b) Directional Gyros	В	-	1	One may be inoperative for day VMC only provided:
					(a) A stabilised heading indication is operative on each pilot's panel, and
					(b) The standby compass is operative.
	(c) Automatic Slaving	С	-	1	May be inoperative for one directional gyro provided:
					(a) A stabilised heading indication is operative on each pilot's panel, and
					(b) The standby compass is operative.
	(d) Radio Magnetic Indicators (RMI)	С	-	1	One indicator may be inoperative provided:
					<ul> <li>Procedures are not dependent upon the use of the remaining RMI,</li> </ul>
					(b) Both directional gyros are operative, and
					(c) An independent stabilised heading indication is operative on each pilot's panel.

AIAO	napter: 34 Navigation								
.,,,	tem & Sequence Numbers	(2) F	(2) Rectification Interval (3) Number installed						
ITEM		-	(3) N						
				(4) 1	Number required for dispatch         (5) Remarks or Exceptions				
ΑΤΑ									
34-20	Attitude Indicators (JAR-OPS 1.650/1.652)								
	<ul> <li>(1) Aeroplane with a MCTOM not over 5700 kg and with a MAPSC of 9 or less seats (aeroplanes not fitted with a standby attitude indicator)</li> </ul>								
	(a) Single pilot operations	В	-	1	Any in excess of one may be inoperative provided the operative attitude indicator is on the commander's side.				
	(b) Two pilot operations	В	-	1	The co-pilot's indicator may be inoperative for day VMC only.				
	(2) Aeroplane with a MCTOM over 5700 kg or with a MAPSC of more than 9 seats (aeroplanes fitted with a standby attitude indicator)								
	(a) Single pilot operations	A	-	0	One or more may be inoperative for a maximum of 2 calendar days in day VMC only, provided the standby attitude indicator is operative.				
	(b) Two pilot operations	В	-	1	One may be inoperative for day VMC only provided the standby attitude indicator is operative.				
34-20	Standby Attitude Indicator (If installed) (JAR-OPS 1.650/1.652)								
	(1) Single pilot operations	В	-	0	One or more may be inoperative for day VMC only provided the commander's attitude indicator is operative.				
	(2) Two pilot operations	В	-	0	May be inoperative for day VMC only provided both attitude indicators are operative.				

(1) Svs	tem & Sequence Numbers	(2) F	Rectifi	cation	Interval
ITEM		(2)			er installed
		1	(-)		Number required for dispatch
					(5) Remarks or Exceptions
ATA					
34-22	Magnetic Compass (JAR-OPS 1.650/1.652)				
	(1) Single pilot operations	В	-	0	May be inoperative provided the stabilised direction indicator is operative, and another source of magnetic heading information is available.
	(2) Two pilot operations	В	-	0	May be inoperative provided at least two independent stabilised direction indicator systems are operative, and another source of magnetic heading information is available.
34-31	Marker Beacon (JAR-OPS 1.865)	В	-	0	One or more may be inoperative for IFR operations, provided approach procedures do not require marker fixes.
		D	-	0	One or more may be inoperative for VFR operations.
34-32	ILS (or MLS) <i>(JAR-OPS 1.865)</i>	В	-	-	One or more may be inoperative for IFR operations, provided approach minima do not require their use.
		D	-	0	One or more may be inoperative for VFR operations.
34-40	Airborne Collision Avoidance System (ACAS) (If installed) <i>(JAR-OPS 1.668)</i>				
	(1) ACAS System	A	-	0	(O)(M) May be inoperative for a maximum of 10 calendar days provided the system is deactivated and secured.
					(cont.)

ATA Cł	napter: 34 Navigation				
	tem & Sequence Numbers	(2) F			Interval
ITEM			(3) N		er installed
				(4) ۲	Iumber required for dispatch         (5) Remarks or Exceptions
ATA					
34-40	Airborne Collision Avoidance System (ACAS) (If installed) (JAR-OPS 1.668) (cont.)				
	(2) Combined TA and RA Dual Displays	С	-	1	(O) May be inoperative on the non-flying pilot side provided:
					(a) TA and RA elements and audio functions are operative on flying pilot's side, and
					(b) TA and RA display indications are visible to the non-flying pilot.
	(3) Resolution Advisory (RA) Display System(s)	С	-	1	(O) One may be inoperative on the non-flying pilot side.
		с	-	0	(O) One or more may be inoperative provided:
					<ul> <li>(a) All Traffic Alert (TA) display elements and voice command audio functions are operative, and</li> </ul>
					(b) TA only mode is selected by the crew.
	(4) Traffic Alert (TA) Display System(s)	С	-	0	(O) One or more may be inoperative provided all installed RA display and audio functions are operative.
34-40	Area Navigation System (If installed) <i>(JAR-OPS 1.865)</i>	С	-	1	(O) Any in excess of the number stated in Aeronautical Information Publications (or their equivalent) as being required to satisfy operational requirements for airspace procedures, may be inoperative provided that the Limitations stated in the Flight Manual are observed.
		A	-	0	(O) One or more may be inoperative for one flight provided:
					<ul> <li>(a) Routing is planned via ground based navigational aids taking account of promulgated range, and</li> <li>(cont.)</li> </ul>

ATA Cł	napter: 34 Navigation								
(1) Svs	(1) System & Sequence Numbers		Rectific	cation	Interval				
ITEM		(_) .	(2) Rectification Interval (3) Number installed						
			(-)		Number required for dispatch				
ΑΤΑ					(5) Remarks or Exceptions				
34-40	Area Navigation System (If installed) <i>(JAR-OPS 1.865)</i> (cont.)				(b) Permission is obtained from the Air Navigation Service Provider(s) when required for the intended route.				
34-41	Weather Radar System(s) (Antenna(s), XCVR(s), Controller(s), Display(s)) (JAR-OPS 1.670(a))	D	-	1	Any in excess of one may be inoperative provided procedures do not require use of inoperative systems.				
		С	-	0	May be inoperative provided the weather reports or forecasts available to the commander indicate that cumulo-nimbus clouds or other potentially hazardous weather conditions, which could be detected by the system when in working order, are unlikely to be encountered on the intended route.				
34-43	Ground Proximity Warning Systems (If installed) (JAR-OPS 1.665)	A	-	0	May be inoperative for a maximum of 6 flights or 25 flight hours or 2 calendar days, whichever occurs first.				
	(1) Modes 1 to 4	A	-	0	May be inoperative for a maximum of 6 flights or 25 flight hours or 2 calendar days, whichever occurs first.				
	(2) Test Mode	A	-	0	May be inoperative for a maximum of 6 flights or 25 flight hours or 2 calendar days, whichever occurs first.				
	(3) Glideslope Deviation (Mode 5)	В	-	0	May be inoperative.				
		С	-	0	May be inoperative for day VMC only. (cont.)				

ATA Cł	napter: 34 Navigation								
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval				
ITEM		(-)	(3) Number installed						
					lumber required for dispatch				
					(5) Remarks or Exceptions				
ATA									
34-43	Ground Proximity Warning Systems (If installed) (JAR-OPS 1.665) (cont.)								
	<ul><li>(4) Terrain Awareness &amp; Warning System (TAWS) (where required)</li></ul>	A	-	0	May be inoperative for a maximum of 10 calendar days provided the GPWS functions are operative.				
		A	-	0	May be inoperative for a maximum of 6 flights or 25 flight hours or 2 calendar days, whichever occurs first.				
	(5) Advisory Callouts (If installed)	С	-	0	(O) May be inoperative provided alternate procedures are established and used.				
					<u>Note:</u> Check Flight Manual limitations for approach minima.				
	(6) Windshear Mode (If installed)								
	(a) Predictive	D	-	0	May be inoperative.				
	(b) Reactive	D	-	0	(O) May be inoperative provided alternate procedures are established and used.				
					<u>Note</u> : For some designs, these functions are dealt with by other systems.				
34-50	Long Range Navigation Systems (LRNS) (If installed) (JAR-OPS 1.870)								
	(1) Unrestricted operations in MNPS	С	-	2	Any in excess of two may be inoperative.				
	airspace				(cont.)				

ATA Ch	ATA Chapter: 34 Navigation								
(1) Sys	tem & Sequence Numbers	(2) Rectification Interval (3) Number installed							
			(3) 1		lumber required for dispatch				
				( ) !	(5) Remarks or Exceptions				
ATA									
34-50	Long Range Navigation Systems (LRNS) (If installed) ( <i>JAR-OPS 1.870</i> ) (cont.) (2) Operations along	С	_	1	Any in excess of one may be inoperative provided				
	notified special routes within MNPS airspace				the operative equipment is visible and usable to either flight crew member seated at their crew station.				
	(3) Non MNPS Operations	D	-	0	One or more may be inoperative provided the planned routes to be flown do not require their use.				

(1) 0.10	tom & Coqueres Numbers	(2) 5	(2) Rectification Interval							
(1) System & Sequence Numbers ITEM			(3) Number installed							
			(3) 1		Number required for dispatch					
				(.).	(5) Remarks or Exceptions					
ATA										
34-51	VOR Navigation (JAR-OPS 1.865)									
	(1) Aeroplane not equipped with FMS	D	-	1	Any in excess of one may be inoperative provided:					
					(a) Operational procedures, are not based only on VOR signals, and					
					(b) Both ADF and DME are operative or alternative approved equipment giving equivalent or enhanced navigation capability is operative.					
		A	-	0	One or more may be inoperative for a maximum of 5 flights provided:					
					<ul> <li>(a) Two additional items of equipment giving equivalent navigation capability are operative, and</li> </ul>					
					(b) The flight can proceed safely, including the approach using the other navigation systems.					
	(2) Aeroplane equipped	С	-	1	Any in excess of one may be inoperative provided:					
	with one operative FMS				(a) Both ADF (where required) and DME are operative, and					
					(b) The aeroplane is equipped with alternative equipment authorised, for the route being flown, by the Authority.					
					<u>Note:</u> Operators should consider if the in-flight failure of any FMS sensor allows safe navigation with the remaining operative sensors and equipment.					
	<ul><li>(3) Aeroplane equipped with two operative FMS</li></ul>	С	-	0	One or more may be inoperative where navigational capability can be assured and the approach procedures are not required to be based upon VOR signals (see note above).					

ATA Ch	napter: 34 Navigation							
(1) 810	tom & Coquence Numbers		(2) Rectification Interval					
	tem & Sequence Numbers	(2) F		Interval				
ITEM		_	(3) N					
				(4) r	Number required for dispatch			
ATA					(5) Remarks or Exceptions			
34-52	Distance Measuring Equipment (DME) (JAR-OPS 1.865)	С	-	0	One or more may be inoperative provided navigation procedures for the planned routes to be flown are not dependant upon the use of affected DME.			
		В	-	0	(O) One or more may be inoperative provided alternate approved navigational equipment is operative and used.			
					<u>Note:</u> Operators should consider if the in-flight failure of any FMS sensor allows safe navigation with the remaining operative sensors and equipment.			
		D	-	-	Any in excess of those required may be inoperative.			
34-53	ADF Receiver (If installed) (JAR-OPS 1.865)	С	-	0	One or more may be inoperative provided navigation procedures for the planned routes to be flown are not dependant upon the use of affected ADF.			
		В	-	0	(O) One or more may be inoperative provided alternate approved navigational equipment is operative and used.			
		D	-	-	Any in excess of those required may be inoperative.			

ATA Ch	apter: 34 Navigation				
	tem & Sequence Numbers	(2) F			Interval
ITEM		_	(3) N		er installed
				(4) N	Number required for dispatch
ATA					(5) Remarks or Exceptions
AIA					
34-54	SSR Transponder (JAR-OPS 1.865) (JAR-OPS 1.866)				
	(1) Mode A/C Functions	С	-	-	Any in excess of those required for the route to be flown may be inoperative.
		A	-	0	(O) May be inoperative for a maximum of 5 flights provided:
					<ul> <li>(a) Permission is obtained from the Air Navigation Service Provider(s) along the route or any planned diversion, and</li> </ul>
					(b) Flight is conducted under VFR over routes navigated by reference to visual landmarks.
					<u>Note</u> : Mode C function is required to be operative for RVSM operations.
					(Cont.)

(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ÎTÊM			(3) Number installed						
			(-)		Number required for dispatch				
				( )	(5) Remarks or Exceptions				
ΑΤΑ									
34-54	SSR Transponder (JAR-OPS 1.865) (JAR-OPS 1.866) (Cont.)								
	(2) Mode S Function	D	-	0	Any in excess of those required for the intended route, may be inoperative.				
					<u>Note 1</u> : A SSR transponder with an operative Mod S function is defined as a transponder which can provide, at least, Elementary Surveillance capability.				
		С	-	0	One or more may be inoperative provided permission is obtained from the Air Navigation Service Provider(s) when required for the intended route.				
					<u>Note 1</u> : An SSR transponder with an operative Mode S function is defined as a transponder which can provide, at least, Elementary Surveillance capability.				
					<u>Note 2</u> : Altitude reporting, provided by an SSR transponder Mode S function, is required for ACAS II operation. Refer to item 34-40 for flight with ACAS II inoperative.				
					Note 3: Altitude reporting, provided by an SSR transponder Mode S function, is required for flight into RVSM airspace.				
	(3) Enhanced Surveillance Functions (if installed)	D	-	0	One or more Downlinked Aircraft Parameters (DAP's), which provide Enhanced Surveillance, may be inoperative when not required for the intended route.				
		С	-	0	One or more Downlinked Aircraft Parameters (DAP's), which provide Enhanced Surveillance, may be inoperative when required for the intended route.				

	napter: 35 Oxygen								
	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ITEM		-	(3) Number installed (4) Number required for dispatch						
				(4) 1	(5) Remarks or Exceptions				
ATA									
35-00	Oxygen Systems - Non- Pressurised Aeroplane (JAR-OPS 1.775)								
	(1) Flight Deck	С	-	-	One or more may be inoperative provided the aeroplane is not operated above 10,000 ft pressure altitude.				
	(2) Cabin Compartment	С	-	-	Any in excess of those required may be inoperative.				
		С	-	-	One or more may be inoperative provided the aeroplane is not operated above 10,000 ft pressure altitude.				
35-10	Flight Crew Oxygen System (Supplemental Oxygen) (JAR-OPS 1.770)								
	(1) Flight Deck Pressure Indication	С	-	-	(O)(M) One or more may be inoperative provided a procedure is used to ensure the oxygen supply is above the minimum for the flight.				
	(2) Bottle Gauges	С	-	0	One or more may be inoperative provided the flight deck pressure indication is operative.				
	(3) Supernumerary Oxygen Masks	С	-	0	One or more may be inoperative provided the associated seat is not occupied.				
		С	-	0	One or more may be inoperative provided maximum altitude is limited to 10,000 ft pressure altitude.				
35-20	Passenger Oxygen System (Supplemental oxygen) (If installed) (JAR-OPS 1.770)	В	-	0	<ul><li>(O)(M) May be inoperative provided:</li><li>(a) Maximum altitude is limited to 10,000 ft pressure altitude.</li></ul>				
					(b) All air-conditioning packs operate normally,				
					(cont.)				

(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval							
ITEM		(_, .			er installed					
				(4)	Number required for dispatch					
. – .					(5) Remarks or Exceptions					
ATA										
35-20	Passenger Oxygen System (Supplemental oxygen) (If installed) <i>(JAR-OPS 1.770)</i> (cont.)				<ul> <li>(c) All other components of the pressurisation system operate normally, and</li> </ul>					
					(d) Passengers are appropriately briefed.					
		В	-	0	(O)(M) May be inoperative provided:					
					(a) Maximum altitude is limited to 25,000 ft pressure altitude,					
					(b) All air-conditioning packs operate normally,					
					(c) All other components of the pressurisation system operate normally,					
					(d) Aeroplane is able to descend within 4 minute to a cabin pressure altitude of 13,000ft at all points along the route to be flown,					
					<ul> <li>(e) Oxygen supply is available for all cabin crew members and at least 10% of the passengers or the entire flight time between 10,000ft and 13,000ft pressure altitude, and</li> </ul>					
					(f) Passengers are appropriately briefed.					
	(1) Fixed bottle or generator system	В	-	0	The automatic deployment system may be inoperative provided the manual deployment system is operative.					
		В	-	-	(M)(O) One or more passenger service units may be inoperative provided:					
					(a) Affected seats are blocked and placarded to prevent occupancy, and					
					(b) Units are operative for all operative passenger seats, toilet compartments and cabin crew locations.					

ATA Chapter: 35 Oxygen						
(1) System & Sequence Numbers ITEM	(2) Rectification Interval (3) Number installed					
ATA 35-50 First Aid Oxygen <i>(JAR-OPS 1.760)</i>	D	-		Jumber required for dispatch(5) Remarks or Exceptions(M) Any bottle in excess of those required may be inoperative provided the inoperative equipment is placarded inoperative, removed from the installed location (if portable) and placed out of sight so it cannot be mistaken for a functional unit.		

ATA Cł	napter: 52 Doors				
(1) Svs	tem & Sequence Numbers	(2) F	Rectifi	cation	Interval
ÎTÉM	·				er installed
					lumber required for dispatch
					(5) Remarks or Exceptions
ATA					
52-22	Emergency Exits (including passenger/crew doors, but excluding flight deck emergency exits) (JAR-OPS 1.805)				
	(1) Passenger or Combi Configuration	A	-	-	(O)(M) One, on each deck, may be inoperative for a maximum of 5 flights provided:
	(Single Deck and Double Deck Aeroplane)				<ul> <li>(a) The passenger number reduction and distribution policy, and cabin safety procedures are established and used,</li> </ul>
					(b) The affected emergency exit is closed and locked,
					(c) A conspicuous barrier, strap or rope and a placard stating "DO NOT USE" are placed across the affected emergency exit prior to passenger boarding,
					(d) The affected emergency exit is not used for passenger boarding, nor for any purpose whilst passengers are on board,
					<u>Note:</u> If the affected emergency exit is operative mechanically, it may still be used for evacuation in the case of emergency.
					(e) Visual indications (illuminated and non- illuminated) directing passengers to the affected emergency exit are obscured,
					<ul> <li>(f) All crew members are briefed on the location and condition of the affected emergency exit, passenger distribution and modified cabin safety procedures,</li> </ul>
					(g) The affected emergency exit and blocked seating layout are checked before each flight by the appropriate cabin crew member, and
					(cont.)

ATA Cł	napter: 52 Doors				
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	Interval	
ÎTÉM	·	( )			er installed
			. ,		lumber required for dispatch
					(5) Remarks or Exceptions
ATA					
52-22	Emergency Exits (including passenger/crew doors, but excluding flight deck emergency exits) ( <i>JAR-OPS 1.805</i> ) (cont.) (1) Passenger or Combi Configuration (Single Deck and Double Deck Aeroplane) (cont.)				<ul> <li>(h) The escape path to the affected emergency exit is checked by the appropriate cabin crew member to be unobstructed before each takeoff and landing.</li> <li><u>Note:</u> Reference may be made to UK CAA FODCOM 8/99 for guidance relating to passenger number reduction.</li> </ul>
	(2) All Cargo Configuration <u>Note:</u> The relief contained	С	-	2	Any in excess of two non-cockpit emergency exits intended to be used by the persons on board to evacuate the aeroplane, may be inoperative.
	herein requires that flight deck emergency exit(s) and means of escape exist and remain operative	A	-	1	(O) Any in excess of one non-cockpit emergency exit, intended to be used by the persons on board to evacuate the aeroplane may be inoperative, for a maximum of 5 flights.
		A	-	1	(O) Any in excess of one non-cockpit emergency exit may be inoperative. One or more functions of this remaining emergency exit may be inoperative for a maximum of 10 calendar days provided:
					<ul> <li>(a) A specific evacuation procedure is established,</li> </ul>
					<ul> <li>(b) Only flight crew members (Including NAA or Operator Inspector(s)) essential for the flight are on board,</li> </ul>
					(c) Its external opening mechanism is operative,
					(d) Its internal opening mechanism is operative,
					(cont.)

ATA Ch	napter: 52 Doors				
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM		(_)			r installed
			(0) 1		lumber required for dispatch
				(-) (	(5) Remarks or Exceptions
ΔΤΔ					
ATA 52-22	Emergency Exits (including passenger/crew doors, but excluding flight deck emergency exits) (JAR-OPS 1.805) (cont.) (2) All Cargo Configuration (cont.)	A	-	0	<ul> <li>(e) Its escape slide or its escape slide-raft is operative unless an approved alternate means of escape is available, and an appropriate raft (If required) is available,</li> <li>(f) Its associated exit marking or locator sign and its associated floor proximity exit identifier and its associated exit interior emergency lighting and its exit exterior emergency lighting (For night operations) are operative, unless an operative torch is available for each flight crew member, and</li> <li>(g) Flight crew members are to review the evacuation procedure before each flight.</li> <li>(O) All non-cockpit emergency exits may be inoperative for a maximum of 3 flights provided:</li> <li>(a) Specific procedures are established to enter/evacuate the aeroplane,</li> <li>(b) An appropriate raft (if required) is available,</li> <li>(c) Only flight crew members (Including NAA or enter/evacuate the aeroplane).</li> </ul>
					Operator's Inspector(s)) essential for the flight are on board, and
					(d) Flight crew members are to review the evacuation procedure before each flight.
52-51	Flight Compartment Door (JAR-OPS 1.735) (If installed)				See item 52-51 for Reinforced Flight Deck Door.

ATA Cł	apter: 52 Doors					
	tem & Sequence	Numbers	(2) F			Interval
ITEM			-	(3) N		er installed
					(4) r	Number required for dispatch
ΑΤΑ						(5) Remarks or Exceptions
52-51	Reinforced Flig					
	(1) Automatic System	Locking	A	1	0	(O)(M) May be inoperative for a maximum of 4 flights provided:
						(a) Automatic locking system is deactivated, and
						<ul> <li>(b) Alternate procedures are established and used for locking and unlocking the door, using deadbolts or supplementary restraint systems.</li> </ul>
						Note: These dispatch conditions only apply to operations to and from countries which require secured doors.
			В	1	0	(O)(M) May be inoperative provided:
						(a) Automatic locking system is deactivated, and no other locking system is used, and
						(b) Alternate procedures are established and used for access to the flight deck.
	(2) Lock Cont / Switch	rol Selector	С	-	1	Any system in excess of one may be inoperative.
	(3) LOCK / DE Function	ENY	В	-	0	(O)(M) May be inoperative provided:
	T unction					<ul> <li>(a) Flight deck access device [keypad or pushbutton] is deactivated,</li> </ul>
						(b) Automatic locking system is verified to operate normally, and
						(c) Alternate procedures are established and used to lock the door, and for access to the flight deck.
						(cont.)

ATA CI	hapter: 52 Doors								
(1) Svs	tem & Sequence Numbers	(2) F	Rectific	Interval					
ITEM		(2)	(2) Rectification Interval (3) Number installed						
			(0).		Number required for dispatch				
				( )	(5) Remarks or Exceptions				
ATA									
52-51	Reinforced Flight Deck Door (JAR-OPS 1.1255) (cont.)								
	(4) UNLOCK Function	С	1	0	(O)(M) May be inoperative provided:				
					(a) Automatic locking system is verified to operate normally, and				
					(b) Alternate procedures are established and used to lock the door.				
	(5) NORM / AUTO Function	В	1	0	(O)(M) May be inoperative provided:				
	T unction				(a) Flight deck access device [keypad or pushbutton] is deactivated,				
					(b) Automatic locking system is verified to operate normally, and				
					(c) Alternate procedures are established and used for access to the flight deck.				
		-	1	0	Refer to item associated with the automatic locking system – see part (1).				
	(6) Door Release Mechanism / Door	D	3	2	One may be inoperative.				
	Strike (if installed)	-	3	-	Refer to item associated with the automatic locking system – see part (1).				
	(7) Flight Deck Access Devices [Keypad /	С	1	0	(O)(M) May be inoperative provided:				
	Pushbutton]				(a) Flight deck access device is deactivated, and				
					(b) Alternate procedures are established and used for access to the flight deck.				
	(8) LEDs on keypad or control panel	С	-	0	(O) May be inoperative provided alternate procedures are established and used for access to the flight deck.				
					(cont.)				

ATA Cł	napter: 52 Doors									
(1) Sys ITEM	(1) System & Sequence Numbers			(2) Rectification Interval (3) Number installed						
ATA			(3)		Sumber required for dispatch (5) Remarks or Exceptions					
52-51	Reinforced Flight Deck Door (JAR-OPS 1.1255) (cont.)									
	(9) Door Lock FAIL / FAULT Light	С	1	0	May be inoperative provided the automatic lock controls are verified to operate normally.					
	(10) Door Lock AUTO UNLK / OPEN Light	С	1	0	May be inoperative provided:					
	UNER / OF EN LIGHT				(a) Automatic lock controls are verified to operate normally, and					
					(b) Door chime or buzzer operates normally.					
	(11) Buzzer / Chime	С	1	0	(O)(M) May be inoperative provided:					
					(a) Flight deck access device [keypad or pushbutton] is deactivated, and					
					(b) Alternate procedures are established and used for access to the flight deck.					
	(12) Supplementary Restraint Systems / Deadbolt (if installed)	D	1	0						
	. ,				<u>Note</u> : For MEL relief on flight deck door surveillance systems, please refer to Section 5 - Additional MEL Policy.					

Ekipman	ATA	JAR-OPS 3 Referansi	SHT-OPS 3 Referansi	Sayfa Numarası
Equipment for making Sound Signals	10-20	3.840	146	3
Sea Anchor	10-20	3.840	146	3
Autopilot	22-10	3.655	121	4
Headset	23-10	3.647	118	5
Audio Selector Panel	23-10	3.855	150	5
Radio Communications	23-12	3.860 / 3.865	151/152	6
Public Address System	23-30	3.695	127	7
7Flight Crew Interphone System	23-40	3.685	125	7
Crew Member Interphone System	23-40	3.690	126	7-8
Cockpit Voice Recorder (CVR)	23-71	3.700 / 3.705	128/129	8
Flight Crew Seats	25-11	3.730	132	9
Supernumerary Seats	25-11	3.730	132	9
Cabin Crew Seats	25-21	3.730	132	10
Passenger Seats	25-21	3.730	132	10
Torches	25-60	3.640	117	11
Megaphones	25-60	3.810	138	11
Automatically Deployable ELT (ADELT)	25-60	3.820	140	11
Life-rafts and Survival ELT(S) for Extended Overwater Flights	25-60	3.830	143	12
Survival Equipment	25-60	3.835	144	12
Emergency Flotation Equipment	25-60	3.843	146	12
First Aid Kit	25-62	3.745	134	13
Emergency Locator Transmitter (ELT)	25-63	3.820	140	13
Lifejackets	25-64	3.825	141	13
Hand Fire Extinguishers	26-24	3.790	136	14
Pitot Heating Systems	30-31	3.650 / 3.652	119/120	15
Pitot Heater Failure Indication System	30-31	3.650 / 3.652	119/120	15
Static Port Heaters	30-31	3.675	124	16
Windshield Wipers	30-42	3.645		16
Ice Detection System	30-80	3.675	124	16
Clocks	31-21	3.650 / 3.652	119/120	17
Flight Data Recorder (FDR)	31-31	3.715 / 3.720	130/131	17-18
Combination Recorder	31-31	3.715 / 3.720	130/131	18-19
Flight Deck Lighting	33-10	3.640	117	20
Passenger Compartment Lighting	33-20	3.640	117	20
Cabin Signs (Fasten seat belts etc.)	33-20	3.731	133	21
Lights for helicopters equipped for amphibious operations	33-40	3.640	117	21
Navigation / Position Lights	33-41	3.640	117	21
Anti-Collision / White Strobe Lights	33-42	3.640	117	22
Landing Lights	33-44	3.640	117	22
Cabin Emergency Lighting	33-50	3.815	139	23
Airspeed Indicators	34-10	3.650 / 3.652	119/120	24
OAT Indicator	34-10	3.650 / 3.652	119/120	24
Altimeters	34-10	3.650 / 3.652	119/120	25
Slip Indicator	34-10	3.650 / 3.652	119/120	25
Vertical Speed Indicators	34-10	3.650 / 3.652	119/120	26

Radio Altimeter with Audio Voice Warning (AVAD)	34-15	3.660	122	26
Ekipman	ΑΤΑ	JAR-OPS 3 Referansı	SHT-OPS 3 Referansi	Sayfa Numarası
Attitude Indicators	34-20	3.650 / 3.652	119/120	27
Stabilised Direction Indicators	34-20	3.650 / 3.652	119/120	28
Standby Magnetic Compass	34-23	3.650 / 3.652	119/120	29
Weather Radar System(s)	34-41	3.670(a)	123(1)	29
Navigation Equipment	34-50	3.865	152	30
SSR Transponder	34-54	3.860 / 3.865	151/152	30
Oxygen Systems Non-Pressurised Aircraft	35-00	3.775	135	31

ATA Chapter: 10 Parking, Mooring, Storage and Return to Service										
(1) Sys <sup>-</sup>	tem & Sequence Numbers	(2) R	(2) Rectification Interval							
ITEM	-		(3) N	lumbe	er installed					
				(4) N	lumber required for dispatch					
					(5) Remarks or Exceptions					
ATA										
10-20	Equipment for making Sound Signals <i>(JAR-OPS 3.840)</i>	D	-	-	(M) Any in excess of those required may be missing or inoperative provided the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.					
10-20	Sea Anchor (JAR-OPS 3.840)	D	-	-	Any in excess of those required may be missing or inoperative.					

ATA Chapter: 22 Autoflight								
(2) F		lumbe						
C	-	0	One or more may be inoperative provided the flight is conducted under day VMC. Any in excess of one may be inoperative					
	с	(3) N C -	C - 0					

ATA Cł	napter: 23 Communications							
ÎTÊM	tem & Sequence Numbers	(2) F	2) Rectification Interval (3) Number installed (4) Number required for dispatch (5) Remarks or Exceptions					
ATA 23-10	Headset (JAR-OPS 3.647)	D	-	-	Any in excess of one headset (including boom microphone) for each required crew member on flight deck duty may be inoperative or missing.			
23-10	Audio Selector Panel (JAR-OPS 3.855)	D	-	-	Any in excess of one for each required crew member on flight deck duty may be inoperative.			
		D	-	-	Any in excess of those required for the intended route may be inoperative provided the flight is conducted under VFR.			
	(1) Press To Transmit (PTT) Switches	В	-	-	(M) Any in excess of one for each required flight crew member may be inoperative provided the affected switch is either verified failed open or is deactivated.			
					<u>Note</u> : Operators of Helicopter Emergency Medical Service (HEMS) or helicopters employing rescue equipment (i.e. winches etc.) may need to consider whether additional crew members (not situated within the flight deck) are included within their MEL alleviation.			

ATA CI	napter: 23 Communications				
(1) Sys ITEM ATA	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Jumber required for dispatch (5) Remarks or Exceptions
23-12	Radio Communications Systems (VHF / HF / UHF / FM) <i>(JAR-OPS 3.860/865)</i>	С	-	1	Any in excess of one, and not powered by an emergency bus, may be inoperative provided flights are conducted under VFR over routes navigated by reference to visual landmarks
		A	-	1	<ul> <li>(O) Any in excess of one of the two required Radio Communication Systems not powered by the emergency bus may be inoperative provided:</li> <li>(a) The helicopter has not made more than one flight since the item was last serviceable, and</li> <li>(b) The commander has satisfied himself that, taking into account the latest information available as to the route/are and heliport to be used (including any planned diversion) and the weather conditions likely to be encountered, the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit.</li> </ul>
	(a) Frequency Transfer Light	С	-	0	One or more may be inoperative.
	(b) Frequency Transfer Switch	с	-	0	One or more may be inoperative.
	(c) Frequency Selector Knob	с	-	1	Any in excess of one may be inoperative.
	(d) Frequency Indication	С	-	1	Any in excess of one may be inoperative.

ATA Cł	napter: 23 Communications									
(1) Sys	tem & Sequence Numbers	(2) F			Interval					
ITEM			(3) Number installed							
				(4) N	Number required for dispatch					
ATA					(5) Remarks or Exceptions					
23-30	Public Address System (PA) (JAR-OPS 3.695)									
	(1) Passenger Configuration	В	-	0	(O) May be inoperative provided:					
					<ul> <li>(a) Alternate normal and emergency procedures and/or operating restrictions are established and used, and</li> </ul>					
					<ul> <li>(b) Flight crew compartment /cabin interphone system (including chime system) is operative.</li> </ul>					
	(2) Cargo Configuration	D	-	0	(O) May be inoperative provided alternate normal and emergency procedures and/or operating restrictions are established and used.					
23-40	Flight Crew Interphone System (Flight Deck Intercommunication) (JAR-OPS 3.685)	D	-	-	Any system in excess of those required may be inoperative.					
23-40	Crew Member Interphone System (JAR-OPS 3.690)									
	(1) Cabin / Service	С	-	0	(O) May be inoperative provided:					
	Interphone System (Flight Crew to Cabin / Ground, Cabin / Ground to Flight Crew,				(a) Alternate normal and emergency procedures are established and used, and					
	Cabin to Cabin)				(b) The PA system is operative.					
					Note: Any station that is operative may be used.					
	(2) Alerting System	С	-	-	Visual signal may be inoperative on the flight deck.					
		С	-	-	Both visual and aural signals may be inoperative in the cabin provided PA system is operative from the flight deck.					
					Note: Any station that is operative may be used.					
					(cont.)					

ATA Ch	napter: 23 Communications				
(1) Sys <sup>.</sup> ITEM	tem & Sequence Numbers	(2) F		Interval er installed	
ATA				(4) N	Number required for dispatch (5) Remarks or Exceptions
23-40	Crew Member Interphone System (cont.) <i>(JAR-OPS 3.690)</i>				
	(3) Handsets	С	-	-	Handsets at non required stations may be inoperative.
		С	-	-	(O) One handset may be inoperative provided alternate procedures are established and used to compensate for the loss of PA and interphone function at the affected station.
					Note: Any handset in excess of that required at each station may be inoperative.
23-71	Cockpit Voice Recorder (CVR) (Where required) ( <i>JAR-OPS 3.700/705</i> )	A	1	0	<ul> <li>May be inoperative provided:</li> <li>(a) The helicopter does not exceed 8 further consecutive flights with the CVR inoperative,</li> <li>(b) A maximum of 72 hours have elapsed since the CVR was found to be inoperative, and</li> <li>(c) Any Flight Data Recorder required to be carried is operative.</li> <li><u>Note</u>: This alleviation is not applicable to combined CVR/FDRs. For those combined systems, refer to item 31-31</li> </ul>

ATA CI	hapter: 25 Equipment / Furnis	hings							
(1) Sys ITEM	tem & Sequence Numbers	(2) F	(2) Rectification Interval (3) Number installed						
				(4) N	Iumber required for dispatch         (5) Remarks or Exceptions				
ΑΤΑ									
25-11	Flight Crew Seats (JAR-OPS 3.730)								
	(1) Power Adjustments (If installed)	D	-	0	May be inoperative for each flight crew member.				
	(2) Manual Adjustments (If installed)								
	(a) Horizontal Adjustments	-	-	-	Must be operative for each flight crew member's seat.				
	(b) Vertical and Recline Adjustments	В	-	0	One or more may be inoperative provided the associated power adjustment of the affected flight crew member seat is operative.				
		В	-	0	(M) One or more may be inoperative provided the associated seat is secured or locked in a position acceptable to the flight crew member.				
	(c) Other Adjustments	С	-	0	(M) One or more may be inoperative provided the associated seat is secured in a position acceptable to the flight crew member.				
					<u>Note:</u> If an inoperative armrest will hinder an emergency evacuation or any other flight duties it should be removed.				
25-11	Supernumerary Seats (Observer Seats) (JAR-OPS 3.370)	D	-	0	One or more may be inoperative provided the seat is not required and is correctly stowed.				

ATA Cł	napter: 25 Equipment / Furnis	shings			
(1) Svs	tem & Sequence Numbers	(2) 5	Rectifi	cation	Interval
ITEM					er installed
		-	(0).		Number required for dispatch
				( ') '	(5) Remarks or Exceptions
ATA					
25-21	Cabin Crew Seats (where required) (JAR-OPS 3.730)	С	-	-	(M)(O) One seat or seat assembly may be inoperative provided:
					(a) Inoperative seat or seat assembly is not occupied,
					<ul> <li>(b) Cabin crew displaced by inoperative seat occupies the passenger seat most accessible to his or her assigned exits,</li> </ul>
					(c) Alternate procedures are established and used for displaced cabin crew,
					(d) Folding type seat is stowed or secured in the retracted position, and
					(e) Passenger seat assigned to cabin crew are placarded "FOR CABIN CREW USE ONLY".
					Note 1: A seat with an inoperative or missing seat belt or harness is considered inoperative.
					Note 2: This requirement does not preclude use of passenger seats by cabin crew members carried in excess of the required cabin crew complement.
25-21	Passenger Seats (JAR-OPS 3.730)	D	-	-	(M) One or more may be inoperative secured in the upright position.
		D	-	-	(M) One or more may be inoperative provided the inoperative seat:
					(a) Does not block an emergency exit,
					(b) Does not restrict any passenger from access to the main aircraft aisle, and
					(c) Is blocked and placarded "DO NOT OCCUPY".
					Note: A seat with an inoperative or missing seat belt or harness is considered inoperative.

	napter: 25 Equipment / Furnis									
	tem & Sequence Numbers	(2) F			Interval					
ITEM			(3) Number installed							
				(4) N	Number required for dispatch					
					(5) Remarks or Exceptions					
ATA										
25-60	Torches (Cockpit/Cabin) <i>(JAR-OPS 3.640)</i>	с	-	-	One or more may be inoperative provided each required crew member assigned to affected position has an operative torch.					
25-60	Megaphones (JAR-OPS 3.810)									
	(1) Passenger Configuration	D	-	-	(M) Any in excess of those required may be inoperative or missing provided:					
					<ul> <li>(a) The inoperative megaphone is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> </ul>					
					(b) Required distribution of operative megaphones is maintained.					
	(2) Cargo Configuration	D	-	0	May be inoperative.					
25-60	Automatically Deployable Emergency Locator Transmitter (ADELT) (Where required) (JAR-OPS 3.820)									
	(1) Flights overland and overwater flights not beyond 10 minutes flying time from land at normal cruise speed	С	-	-	May be inoperative.					
	(2) Overwater flights beyond 10 minutes	A	-	-	May be inoperative provided:					
flyin at ne	flying time from land at normal cruise speed				<ul> <li>(a) The helicopter shall not fly for more than 6 flight hours after the ADELT was found to be inoperative, and</li> </ul>					
					(b) A maximum of 24 hours have elapsed since the ADELT was found to be inoperative.					

ATAU	hapter: 25 Equipment / Furnis	siings								
(1) Sys	tem & Sequence Numbers	(2) F	(2) Rectification Interval							
ITEM			(3) Number installed							
				(4) N	Number required for dispatch					
					(5) Remarks or Exceptions					
ATA										
25-60	Life-rafts and Survival ELT(S) for Extended Overwater Flights (JAR-OPS 3.830)	D	-	-	(M) Any in excess of those required may be missing or inoperative provided, the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.					
25-60	Survival Equipment (JAR-OPS 3.835)	D	-	-	(M) Any in excess of those required may be missing or inoperative provided, the inoperative equipment is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit.					
25-60	Emergency Flotation Equipment (JAR-OPS 3.843)									
	(1) Helicopters in Performance Class 1	D	-	0	May be inoperative for flights overland.					
		С	-	0	May be inoperative for flights overwater which are at a distance which is less than 10 minutes flying time from land, at normal cruise speed.					
	(2) Helicopters in Performance Class 2									
	(a) En-route	D	-	0	May be inoperative for flights overland.					
		С	-	0	May be inoperative for flights overwater which are at a distance which is less than 10 minutes flying time from land, at normal cruise speed.					
	(b) Take-off & Landing overwater	-	-	1	Must be operative.					
	(3) Helicopters in Performance Class 3									
	(a) En-route	D	-	0	May be inoperative for flights overland.					
	(b) Take-off & Landing overwater	-	-	1	Must be operative.					

ATA Cł	napter: 25 Equipment / Furnis	shings			
(1) 0:	tom 9 Convonce Number		0.04:11		listen iel
ITEM	tem & Sequence Numbers	(2) Rectification			er installed
		-	(3) 1		Number required for dispatch
				(4) 1	(5) Remarks or Exceptions
					(5) Remarks of Exceptions
ATA					
25-62	First Aid Kit (JAR-OPS 3.745)	A	-	-	May be incomplete for 1 calendar day.
		D	-	1	Any in excess of one may be incomplete or missing.
25-63	Emergency Locator Transmitter (ELT)	A	-	0	May be inoperative provided:
	(JAR-OPS 3.820)				<ul> <li>(a) The helicopter shall not fly for more than 6 hours after the ELT was found to be inoperative, and</li> </ul>
					(b) A maximum of 24 hours have elapsed since the ELT was found to be inoperative.
25-64	Lifejackets (JAR-OPS 3.825)	D	-	-	(M) Any in excess of those required may be missing or inoperative, provided:
					<ul> <li>(a) Inoperative lifejacket is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> </ul>
					(b) Required distribution of serviceable lifejackets is maintained.

ATA Chapter: 26 Fire Protection							
(1) System & Sequence Numbers ITEM	(2) F			Interval er installed			
			(4) N	lumber required for dispatch			
				(5) Remarks or Exceptions			
АТА							
26-24 Hand Fire Extinguishers (JAR-OPS 3.790)	D	-	-	(M) Any in excess of those required may be inoperative or missing provided:			
				<ul> <li>(a) The inoperative fire extinguisher is placarded inoperative, removed from the installed location and placed out of sight so it cannot be mistaken for a functional unit, and</li> </ul>			
				(b) Required distribution is maintained.			

	napter: 30 Ice and Rain Prote	ection								
(1) Svs	tem & Sequence Numbers	(2)	Rectifi	cation	Interval					
ITEM			(3) Number installed							
			. ,		Number required for dispatch					
					(5) Remarks or Exceptions					
ΑΤΑ										
30-31	Pitot Heating Systems (JAR-OPS 3.650/652)	D	-	2	Any in excess of two may be inoperative.					
	(1) Day VFR operations	С	-	0	One or more may be inoperative provided the helicopter is not operated at any time in known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C.					
	(2) IFR or Night operations	С	-	1	(O)(M) Any in excess of one may be inoperative provided:					
					(a) The remaining pitot heater is verified to be operative prior to each flight,					
					(b) The pitot heat failure indication (if installed) for the remaining pitot heater is verified to be operative prior to each flight,					
					(c) Flight is conducted under VMC with the surface in sight, and					
30-31	Pitot Heater Failure Indication System (JAR-OPS 3.650/652)				(d) The helicopter is not operated at any time in known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C.					
	(1) Day VFR operations	D	-	0	May be inoperative.					
	(2) IFR or Night Operations	С	-	1	(O)(M) Any in excess of one may be inoperative provided:					
					<ul> <li>(a) The associated pitot heater is verified to be operative prior to each flight,</li> </ul>					
					<ul> <li>(b) Flight is conducted under VMC with the surface in sight, and</li> <li>(c) The helicopter is not operated at any time in known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C.</li> </ul>					

ATA CI	napter: 30 Ice and Rain Prote	ection			
	(1) System & Sequence Numbers ITEM				Interval er installed
			(0)1		Number required for dispatch
				, ,	(5) Remarks or Exceptions
ATA					
30-31	Static Port Heaters (where required) (JAR-OPS 3.675)				
	(1) Day VFR operations	D	-	0	One or more may be inoperative provided the helicopter is not operated at any time in known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C.
	(2) IFR or Night operations	В	-	1	(O)(M) Any in excess of one static port heater may be inoperative provided:
					(a) Flight is conducted under VMC with the surface in sight,
					<ul> <li>(b) The helicopter is not operated at any time in known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C, and</li> </ul>
					(c) The remaining static port heating system and all connected flight instruments are verified to be operative prior to each flight.
30-42	Windshield Wipers (JAR-OPS 3.675)	С	-	-	One or more may be inoperative provided the aircraft is not operated in known or forecast precipitation that requires their use.
30-80	Ice Detection System (JAR-OPS 3.675)	D	-	0	(O) May be inoperative provided operations are not conducted into known or forecast conditions of visible moisture or precipitation, when the OAT is less than +5°C.
		D	-	0	(O) May be inoperative provided alternate procedures are established and used to monitor for the presence of ice.

ATA CI	napter: 31 Indicating / Record	ding S	ystem	S	
(1) Sys ITEM	tem & Sequence Numbers	(2) F		lumbe	Interval er installed Jumber required for dispatch (5) Remarks or Exceptions
ΑΤΑ					
31-21	Clocks (JAR-OPS 3.650/652)	С	-	0	<ul> <li>May be inoperative provided an accurate timepiece is operative on the flight deck indicating the time in hours, minutes and seconds.</li> <li><u>Note 1:</u> The above is applicable only to those aircraft where the clock has no implication on other equipment e.g. FDR, otherwise the effects on such other systems must be considered.</li> <li><u>Note 2:</u> On the basis that the timepiece required does not need to be approved, an accurate pilot's wristwatch which indicates hours, minutes and seconds, would be acceptable.</li> </ul>
31-31	Flight Data Recorder (FDR) (where required) ( <i>JAR-OPS 3.715 / 3.720</i> )	A	1	0	<ul> <li>May be inoperative provided:</li> <li>(a) The helicopter does not exceed 8 further consecutive flights with the FDR inoperative,</li> <li>(b) A maximum of 72 hours have elapsed since the FDR was found to be inoperative, and</li> <li>(c) Any Cockpit Voice Recorder required to be carried is operative.</li> <li><u>Note 1:</u> This alleviation is not applicable to combined CVR / FDRs. For those combined systems, refer to item 31-31.</li> </ul>
					(cont.)

ATA Cł	napter: 31 Indicating / Record	ding S	ystem	S							
(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval								
ITEM		(_)	(3) Number installed								
		1	(-).	-	lumber required for dispatch						
				( ) ·	(5) Remarks or Exceptions						
ATA											
31-31	Flight Data Recorder (where required) ( <i>JAR-OPS 3.715 / 3.720</i> ) (cont.)				<ul> <li><u>Note 2:</u> The flight data recorder is considered to be inoperative when any of the following conditions exist:</li> <li>(i) Loss of the flight recording function is evident to the flight crew during the pre-flight check e.g. by means of a system status monitor, or</li> <li>(ii) The need for maintenance has been identified by the system monitors, where available, with the setting of an indicator and the cause of that setting has not been determined, or</li> <li>(iii) Analyses of recorded data or maintenance actions have shown that</li> </ul>						
					more than 5% of the total number of individual parameters (variable and discrete) required to be recorded for the particular aircraft, are not being recorded properly.Note 3:Where improper recording affects 5% of the parameters or less, timely corrective action will need to be taken by the aeroplaneaeroplaneoperator in accordance with approved maintenance procedures.						
31-31	Combination Recorder (where required) (JAR-OPS 3.715 / 3.720)	A	1	0	<ul> <li>If one combination recorder is installed, the flight data recorder or the cockpit voice recorder function may be inoperative provided:</li> <li>(a) The other function, where required, is operative,</li> <li>(b) The helicopter does not exceed 8 further flights with the inoperative function, and</li> <li>(c) A maximum of 72 hours have elapsed since</li> </ul>						
					(cont.)						

(1) System & Sequence Numbers		(2) F	(2) Rectification Interval						
ITEM		(2) 1	(2) Rectification interval (3) Number installed						
			(0) !		Number required for dispatch				
				( . , .	(5) Remarks or Exceptions				
ATA									
,,,,,									
31-31	Combination Recorder (where required) (JAR-OPS 3.715 / 3.720)	A	2	1	If two combination recorders are installed, one may be inoperative provided:				
	(cont.)				(a) The other combination recorder is operative, and				
					(b) A maximum of 10 days elapsed since the combination recorder was found to be inoperative.				
				Note 1:A combination recorder is a singleflightrecorder that combines thefunctions of twoor more accidentrecording functions in asingle,crash protected box.					
					Note 2: The flight data recorder is considered to be inoperative when any of the following conditions exist:				
					<ul> <li>Loss of the flight recording functions is evident to the flight crew during the pre- flight check e.g. by means of a system status monitor, or</li> </ul>				
					<ul> <li>(ii) The need for maintenance has been identified by the system monitors, where available, with the setting of an indicator and the cause of that setting has not been determined, or</li> </ul>				
					(iii) Analyses of recorded data or maintenance actions have shown that more than 5% of the total number of individual parameters (variable and discrete) required to be recorded for the particular aircraft, are not being recorded properly.				
					<u>Note 3:</u> Where improper recording affects 5% of the parameters or less, timely corrective action will need to be taken by the aeroplane operator in accordance with approved maintenance procedures.				

ATA Cł	napter: 33 Lights				
(1) Sys ITEM	tem & Sequence Numbers	(2) F			Interval er installed
ATA		-	(3) N		Vumber required for dispatch (5) Remarks or Exceptions
33-10	Flight Deck Lighting (JAR-OPS 3.640)	С	-	0	One or more may be inoperative for daylight operations.
		С	-	-	(O) Individual lights may be inoperative provided:
					(a) Sufficient lighting is operative to make each required instrument, control, and other device for which it is provided easily readable,
					(b) Sufficient flight deck emergency lighting is operative, and
					(c) Lighting configuration at dispatch is acceptable to the flight crew.
		С	-	-	Co-pilot's station instrument lights may be inoperative for single pilot operations, provided no co-pilot's station instrument is required to be used by the pilot.
33-20	Passenger Compartment Lighting	D	-	0	May be inoperative for daylight operations.
	(JAR-OPS 3.640)	D	-	0	May be inoperative provided passengers are not carried.
		С	-	-	Individual lights may be inoperative provided:
					(a) Inoperative lights do not exceed 50% of the total installed,
					(b) Inoperative lights are not part of the cabin emergency lighting, and
					(c) Lighting is acceptable for the crew located in the cabin to perform their required duties.

ATA Cł	napter: 33 Lights								
(1) Svs	tem & Sequence Numbers	(2) F	(2) Rectification Interval						
ITEM			(3) Number installed						
				(4) N	lumber required for dispatch				
					(5) Remarks or Exceptions				
ΑΤΑ									
33-20	Cabin Signs (Fasten Seat Belt & No Smoking Signs) (JAR-OPS 3.731)	С	-	-	(M)(O) One or more may be inoperative and the affected passenger seat(s), cabin attendant seat(s) or lavatories may be occupied provided:				
					(a) The PA system is operative and can be clearly heard throughout the cabin during flight, and				
					(b) A procedure is used to notify passengers when the seat belts must be fastened and smoking is prohibited.				
		С	-	-	May be inoperative provided passengers are not carried.				
		С	-	-	(M)(O) One or more may be inoperative provided no passenger seat, crew member seat or lavatory is occupied from which a 'No Smoking/Fasten Seat Belt' sign is not readily legible.				
33-40	Lights for Helicopters equipped for amphibious operations (JAR-OPS 3.640)	-	-	-	As required by applicable international regulations.				
33-41	Navigation/Position Lights (JAR-OPS 3.640)	С	-	0	One or more may be inoperative for daylight operations.				
		С	-	-	Any in excess of those required may be inoperative for night operations.				
		A	-	-	(O) One or more may be inoperative for a single night flight when departing from an offshore or remote installation provided:				
					(a) The appropriate ATC unit has been informed before departure,				
					(b) The anti-collision light system is operative, and				
					(c) The landing light system is operative.				

ATA Ch	napter: 33 Lights								
(1) Syst ITEM	tem & Sequence Numbers	(2) F	(2) Rectification Interval (3) Number installed						
			(3) 1		Number required for dispatch				
				(4) 1	(5) Remarks or Exceptions				
ΑΤΑ									
33-42	Anti-Collision Light Systems (JAR-OPS 3.640)								
	<ul><li>(1) Anti-Collision Light</li><li>(Beacon or Strobe</li><li>Type)</li></ul>								
	(a) Daylight operations	В	-	0	(O) One or more may be inoperative.				
		С	-	1	Any in excess of one may be inoperative.				
	(b) Night operations	С	-	1	Any in excess of one may be inoperative.				
	(c) Offshore and remote operations	A	-	0	(O) One or more may be inoperative for a single night flight when departing from an offshore or remote installation provided:				
					(a) The appropriate ATC unit has been informed before departure,				
					(b) The navigation light system is operative, and				
					(c) The landing light system is operative.				
					<u>Note:</u> If the red anti-collision light (if installed) is inoperative, alternate procedures are established and used when the aircraft is on the ground with the engine(s) running and/or rotors turning.				
	(2) White Strobe Light (if installed)	С	-	0	One or more may be inoperative.				
33-44	Landing Lights (JAR-OPS 3.640)	с с	-	0	One or more may be inoperative for daylight operations. Any in excess of one adjustable landing light may				
					be inoperative for night operations.				

(1) System & Sequence Numbers		(2) F	(2) Rectification Interval							
ITEM			(3) Number installed							
		_			lumber required for dispatch					
					(5) Remarks or Exceptions					
ATA										
/ / .										
33-50	Cabin Emergency Lighting <i>(JAR-OPS 3.815)</i>									
	<ul><li>(1) Cabin Emergency</li><li>Lighting System</li><li>(Where required)</li></ul>	-	-	-	May be inoperative provided in accordance with arrangements agreed with the National Authority.					
	(2) EXIS Lighting (If installed)	В	-	0	May be inoperative overland, or for overwater operations within 10 minutes flying time of land.					
	(a) EXIS 1 Standard Length (24 LEDs)	В	-	0	A maximum of 3 LEDs may be inoperative with no more than 2 adjacent inoperative LED's.					
	(b) EXIS 1 Half Length (12 LEDs)	В	-	0	A maximum of 1 LED may be inoperative.					
	(c) EXIS 1 One Third Length (8 LEDs)	В	-	0	A maximum of 1 LED may be inoperative.					
	(d) EXIS II	В	-	0	A maximum of 2 LEDs per corner strip, one in each arm, may be inoperative.					
	(e) EXIS III	В	-	0	A maximum of 4 LEDs per light assembly may be inoperative no more than 1 LED is inoperative per band along any side.					
	(3) Helicopter Emergency Egress Lighting	В	-	0	May be inoperative over land or for over-water operations within 10 minutes flying time of land.					
	System (HEELS) (If installed)	A	-	-	One element on each side of the passenger compartment and/or cockpit may be inoperative for a maximum of 3 calendar days.					

ATA Cł	napter: 34 Navigation								
(1) System & Sequence Numbers		(2) F	(2) Rectification Interval						
ITEM		( )	(3) Number installed						
				(4) N	lumber required for dispatch				
					(5) Remarks or Exceptions				
ΑΤΑ									
34-10	Airspeed Indicators (JAR-OPS 3.650/652)								
	(1) Single pilot operations	D	-	1	Any in excess of one may be inoperative provided the operative airspeed indicator is on the handling pilot's side.				
	(2) Two pilot operations	D	-	2	Any in excess of two may be inoperative provided operative airspeed indicators are at each pilot's station.				
		В	-	1	Any in excess of one may be inoperative provided:				
					(a) The operative airspeed indicator is on the handling pilot's side, and				
					(b) Flight is conducted by day under VFR over routes navigated by reference to visual landmarks.				
	(3) Helicopters equipped with EFIS displays								
	(a) Standby airspeed indicator	В	-	0	May be inoperative provided:				
	indicator				(a) Both the commander's and co-pilot's airspeed indicator systems are operative, and				
					(b) Flight is conducted by day under VFR over routes navigated by reference to visual landmarks.				
					<u>Note:</u> For helicopters with EFIS type displays, the airspeed display (tape) must be operative.				
34-10	OAT Indicator (JAR-OPS 3.650/652)	С	-	0	May be inoperative provided another air temperature indication is operative that is convertible to OAT.				

		1								
	tem & Sequence Numbers	(2) F	(2) Rectification Interval							
ITEM			(3) Number installed							
				(4) N	Number required for dispatch					
					(5) Remarks or Exceptions					
ATA										
34-10	Altimeters (JAR-OPS 3.650/652)									
	(1) Day VFR operations	С	-	1	Any in excess of one may be inoperative provided:					
					<ul> <li>(a) Flight is conducted over routes navigated by reference to visual landmarks, and</li> </ul>					
					(b) The operative altimeter is on the handling pilot's side.					
(2) IFR or Night operations	С	-	1	Any in excess of one may be inoperative provided:						
				(a) Flight is conducted over routes navigated by reference to visual landmarks						
					(b) The radio altimeter (where required) is operative, and					
					(c) The operative altimeter is on the handling pilot's side.					
					<u>Note:</u> For helicopters with EFIS type displays, the altimeter display (tape) must be operative.					
34-10	Slip Indicator (JAR-OPS 3.650/652)									
	(1) Single pilot operations	В	-	0	May be inoperative when flight is conducted under VFR over routes navigated by reference to visual landmarks.					
	(2) Two pilot operations	С	-	1	Any in excess of one may be inoperative provided the operative slip indicator is on the handling pilot's side.					
		В	-	0	May be inoperative when flight is conducted under VFR over routes navigated by reference to visual landmarks.					

ATA Ch	napter: 34 Navigation									
(1) System & Sequence Numbers			(2) Rectification Interval (3) Number installed							
			(3) 1		Number required for dispatch					
				( .) .	(5) Remarks or Exceptions					
ΑΤΑ										
34-10	Vertical Speed Indicator (JAR-OPS 3.650/652)									
	(1) Single Pilot Operations	С	-	1	Any in excess of one may be inoperative provided the operative VSI is on the handling pilot's side.					
		В	-	0	May be inoperative provided the flight is conducted by day under VFR over routes navigated by reference to visual landmarks.					
	(2) Two Pilot Operations	С	-	1	Any in excess of one may be inoperative provided the operative VSI is on the handling pilot's side.					
		В	-	0	May be inoperative provided the flight is conducted by day under VFR over routes navigated by reference to visual landmarks.					
34-15	Radio Altimeter with an Audio Voice Warning (or other means acceptable	A	-	0	<ul><li>(O) May be inoperative provided:</li><li>(a) No more than 6 hours shall be flown over water since the radio altimater was found to be flown.</li></ul>					
	to the Authority) (Where required) <i>(JAR-OPS 3.660)</i>				water since the radio altimeter was found to be inoperative,					
					<ul> <li>(b) A maximum of 24 hours have elapsed since the radio altimeter was found to be inoperative,</li> </ul>					
					(c) The aircraft shall not fly overwater at an altitude of less than 500 feet except for take-off and landing, and					
					<ul> <li>(d) The helicopter shall not descend below 500 feet on approach to landing overwater unless the landing site is clearly visible to the pilot.</li> </ul>					

ATA Ch	napter: 34 Navigation				
(1) Syst	tem & Sequence Numbers	(2) F	Rectific	cation	Interval
ITEM					er installed
				(4) N	lumber required for dispatch
. – .					(5) Remarks or Exceptions
ATA					
34-20	Attitude Indicators (JAR-OPS 3.650/652)				
	(1) Day VFR operations				
	<ul> <li>(a) Aircraft &gt; 3175 kg MCTOM or for operations over water (out of sight of land or with visibility &lt; 1500 meters)</li> </ul>				
	(i) Single Pilot Operations	D	-	1	Any in excess of one may be inoperative provided the operative attitude indicator is on the commander's side.
	(ii) Two Pilot Operations	D	-	2	Any in excess of two may be inoperative provided operative attitude indicators are at each pilot's station.
		В	-	1	One may be inoperative provided flight is conducted under day VFR with a visual horizon.
	(iii) Standby Attitude Indicator	с	-	0	May be inoperative provided all other required attitude indicators are operative.
	(2) IFR or Night Operations				
	(a) Single Pilot Operations	В	-	1	Any in excess of one may be inoperative.
	(b) Two Pilot Operations	В	-	1	Any in excess of one may be inoperative provided the operative attitude indicator is on the handling pilot's side.
	(c) Standby Attitude Indicator	В	-	1	Any in excess of one may be inoperative.

ATA Cł	napter: 34 Navigation									
(4) 0			<u>)</u>							
(1) Sys ITEM	tem & Sequence Numbers	(2) F	(2) Rectification Interval (3) Number installed							
		_	(3) 1		Jumber required for dispatch					
				( ., .	(5) Remarks or Exceptions					
ΑΤΑ										
/////										
34-20	Stabilised Direction Indicators (JAR-OPS 3.650/652)									
	(1) Day VFR Operations									
	<ul> <li>(a) Aircraft &gt; 3175 kg MCTOM or for Over Water</li> <li>Operations (out of sight of land or with visibility &lt; 1500 meters)</li> </ul>	D	-	1	Any in excess of one may be inoperative provided the operative stabilised direction indicator is on the handling pilot's side.					
	meters)	А	-	0	May be inoperative provided:					
					(a) The standby magnetic compass is operative,					
					(b) Flight is conducted overland under day VFR over routes navigated by reference to visual landmarks, and					
					(c) The helicopter may depart on a flight or series of flights for the purpose of returning to a base where repairs or replacements can be made.					
	(2) IFR or Night Operations									
	(a) Two Pilot Operations	С	-	1	Any in excess of one may be inoperative provided:					
					<ul> <li>(a) The operative stabilised direction indicator is on the handling pilot's side, and</li> </ul>					
					(b) The standby magnetic compass is operative.					

(1) System & Sequence Numbers		(2) Rectification Interval								
ITEM			(3) Number installed							
				(4) N	Jumber required for dispatch					
					(5) Remarks or Exceptions					
ATA										
34-23	Standby Magnetic Compass (JAR-OPS 3.650/652)									
		В	-	0	May be inoperative provided:					
					(a) Flight is conducted by day under VFR over routes navigated by reference to visual landmarks, and					
					(b) When operationally required, the helicopter's main Magnetic Direction Indicator System is operative.					
34-41	Weather Radar System(s) (Antenna(s), XCVR(s), Controller(s), Display(s)) (JAR-OPS 3.670(a))	D	-	1	Any system in excess of one may be inoperative provided procedures do not require use of inoperative systems.					
		С	-	0	May be inoperative provided the weather reports or forecasts available to the commander indicate that cumulo-nimbus clouds or other potentially hazardous weather conditions, which could be detected by the system when in working order, are unlikely to be encountered on the intended route and not required under JAR 3.295 with regard to coastal heliports or offshore alternates.					

### EK-8(II)(JAR-OPS 3/SHT-OPS 3)

### MMEL'in Remarks and Exceptions kisminda "As Required by FAR/JAR", "As Required by Operating Requirements" olarak belirtilen Ekipmanlar için MEL Rehber Dokümanı

ATA Chapter: 34 Navigation (1) System & Sequence Numbers (2) Rectification Interval ITEM (3) Number installed (4) Number required for dispatch (5) Remarks or Exceptions ATA 34-50 Navigation Equipment А (O) No more than one of the navigation equipment \_ (JAR-OPS 3.865) systems carried in accordance with the requirements of JAR-OPS 3.865, may be inoperative provided: The helicopter has not made more than one (a) flight since the item was last serviceable, and The commander has satisfied himself that, (b) taking into account the latest information available as to the route/area and heliport to be used (including any planned diversion) and the weather conditions likely to be encountered, the flight can be made safely and in accordance with any relevant requirements of the appropriate air traffic control unit. Any in excess of those required may be inoperative. D -\_ 34-54 SSR Transponder А 0 (O) May be inoperative provided agreement can be \_ (JAR-OPS 3.860/865) obtained from all ATC authorities along the route or any planned diversion, to a place where repairs can be made. Any in excess of those required for the route to be D flown may be inoperative.

ATA Cł	napter: 35 Oxygen						
(1) Sys	tem & Sequence Numbers	(2) Rectification Interval					
ÎTÉM	·	. ,	-		er installed		
				(4) N	Number required for dispatch		
					(5) Remarks or Exceptions		
ATA							
35-00	Oxygen Systems-Non- Pressurised Aircraft (Where required) (JAR-OPS 3.775)						
	(1) Flight Deck	С	-	-	One or more may be inoperative provided the aircraft is not operated above a pressure altitude of 10,000 ft.		
	(2) Cabin Compartment	с	-	-	Any in excess of those required may be inoperative.		
		С	-	-	One or more may be inoperative provided the aircraft is not operated above a pressure altitude of 10,000 ft.		

Ekipman	ATA	Sayfa Numarası
Flight Director	22-10	2
Navigation Database(s)	22-71	2-3
Datalink	23-30	4
Flight Deck Door Surveillance System	23-70	4
Windshear Detection / Warning System	34-41	5
Global Positioning System (GPS)	34-58	5
Electronic Flight Bag (EFB) Systems	46-20	6-7

ATA Cł	napter: 22 Autoflight				
(1) Syst ITEM	tem & Sequence Numbers	(2) F		Jumbe	Interval er installed Jumber required for dispatch (5) Remarks or Exceptions
22-10	Flight Director	С	-	-	<ul> <li>(O) One or more may be inoperative provided:</li> <li>(a) Applicable operating minima do not require their use, and</li> <li>(b) The navigation specifications of the route to be flown do not require their use.</li> </ul>
22-71	Navigation Database(s) Note: Database(s) which is/are out of date is/are considered to be inoperative	С	-	0	<ul> <li>(O) One or more may be inoperative for the intended route where conventional (non-RNAV) navigation is sufficient, provided:</li> <li>(a) Current aeronautical information (e.g. charts) is available for the entire route and for the aerodromes to be used, and</li> <li>(b) Navigation database information is disregarded.</li> </ul>
		С	-	1	<ul> <li>Any in excess of one may be inoperative provided:</li> <li>(a) The operative database must be up to date for routes, departures, arrival and approach procedures that require the use of navigation Database for RNAV, and</li> <li>(b) This up to date Database is readily available to the flight crew member(s) responsible for navigation.</li> </ul>
					(cont.)

	hapter: 22 Autoflight	T.							
(1) System & Sequence Numbers		(2) F	(2) Rectification Interval						
ITEM			(3) N	3) Number installed					
				(4) N	lumber required for dispatch				
ΑΤΑ					(5) Remarks or Exceptions				
22-71	Navigation Database(s) (cont.)	A	-	0	<ul> <li>(O) One or more may be out of date for a maximum of 10 calendar days provided:</li> <li>(a) Area Navigation (RNAV) departure, arrival</li> </ul>				
					and approach procedures do not depend on the data amended in the current database cycle,				
					(b) Before each flight, current aeronautical information is used to verify the database Navigation Fixes, the coordinates, frequencies, status (as applicable) and suitability of Navigation Facilities required for the intended route, and				
					(c) Radio navigation aids, which are required to be flown for departure, arrival and approach procedures and which have been amended i the current database cycle, are manually tuned and identified.				
		A	-	0	(O) One or more may be out of date for a maximum of 10 calendar days provided:				
					<ul> <li>(a) Conventional (Non-RNAV) departure, arrival and approach procedures, when available, o ANSP assistance are used as an alternative to RNAV procedures which have been amended in the current database cycle,</li> </ul>				
					(b) Before each flight, current aeronautical information is used to verify the database Navigation Fixes, the coordinates, frequencies, status (as applicable) and suitability of Navigation Facilities required for the intended route, and				
					(c) Radio navigation aids, which are required to be flown for departure, arrival and approach procedures and which have been amended i the current database cycle, are manually tuned and identified.				

ATA Chapter: 23 Communications								
(1) Syst ITEM ATA	em & Sequence Numbers	(2) Rectification Interval (3) Number installed (4) Number required for dispatch (5) Remarks or Exceptions						
23-30	Datalink	C D	<ul> <li>procedures are established and used.</li> <li>D - 0 May be inoperative provided procedures do not</li> </ul>					
23-70	Flight Deck Door Surveillance System (e.g. CCTV) (if installed)	D	-	0	require its use. (O) May be inoperative.			

(1) System & Sequence Numbers		(2) Rectification Interval							
ITEM		(3) Number installed							
			(4) Number required for dispatch						
АТА					(5) Remarks or Exceptions				
34-41	Windshear Detection / Warning System								
	(1) Predictive	D	-	0	May be inoperative.				
(2) Reactive			-	0	(O) May be inoperative provided alternate procedures are established and used.				
34-58	Global Positioning System (GPS)	С	-	0	(O) One or more may be inoperative provided alternate procedures are established and used.				
		D	-	0	(O) One or more may be inoperative provided procedures do not require its use.				
					<u>Note</u> : If GPS is used as a Long Range Navigation System, refer to item 34-50 in Section 3 of this TGL.				

ATA CI	napter: 46 Information System	ns						
(1) Sys ITEM ATA 46-20	tem & Sequence Numbers Electronic Flight Bag (EFB) Systems (JAR-OPS 1.135(b)/1.1040(m))				ion Interval mber installed 4) Number required for dispatch (5) Remarks or Exceptions For further guidance relating to EFB, please refer to JAA Administrative & Guidance Material Sectio Four: Part Three: Temporary Guidance Leaflet No 36.			
	(1) Class 1, 2 & 3 EFB The purpose of this entry is not to require inclusion of Class 1 & 2 EFBs in an operator's MEL, but it is one means of controlling inoperative EFB equipment. Other means may also be agreed with the NAA.	C		0	<ul> <li>(M)(O) May be inoperative provided alternate procedures are established and used where operating procedures are dependant upon the use of the affected EFB.</li> <li>Note: Any EFB function which operates normally may be used.</li> </ul>			

(1) System & Sequence Numbers		(2) 5	(2) Rectification Interval						
ITEM		(2) 1	(2) Rectification interval (3) Number installed						
			(0) 1		Number required for dispatch				
				(5) Remarks or Exceptions					
АТА									
46-20	Electronic Flight Bag (EFB) Systems (cont) (JAR-OPS 1.135(b)/1.1040(m))								
	(2) Class 2 EFB								
	(a) Mounting Device	С	-	1	(M) (O) Any in excess of one may be inoperative provided the affected EFB is secured by an alternative means.				
		С	-	0	(M) (O) May be inoperative provided:				
					(a) The associated EFB is used in accordance with Class 1 EFB stowage criteria, and				
					<ul> <li>(b) Alternate procedures are established and used where operating procedures are dependant upon the use of the affected EFB</li> </ul>				
	(b) Data Connectivity	С	-	1	(M) (O) Any in excess of one may be inoperative provided an alternative means of data connectivity is used.				
		С	-	0	(M) (O) May be inoperative provided alternate procedures are established and used where operating procedures are dependent upon the use of the affected EFB.				
					Note: Any EFB function which operates normally may be used.				
	(3) Power Connection for Class 1 and Class 2 EFB	С	-	1	(M) (O) Any in excess of one may be inoperative provided an alternative power source is available and can be used for the planned duration of use of the affected EFB.				
		С	-	0	(M) (O) May be inoperative provided alternate procedures are established and used.				

### EK 9

### MEL HAZIRLAMA KONTROL FORMU

İşletm	e Adı, Havaaracı tipi;							
MMEL	. Revizyon No / Tarih							
MEL F	Revizyon No / Tarih							
KONT								
		1.KONTROL	2.KONTROL					
1	Table of Contents (İçindekiler) var mı?							
2	Log of Revisions (Revizyon Kayıt Sayfası) var mı?							
3	List of Holders (Dağıtım Listesi: 6 Post Holder + SHGM + Baş							
	Dispatcher + A/Cs vb. ) var mı?							
4	List of Abbreviations (Kısaltmalar Listesi) var mı?							
5	List of Effective Pages (Etkin Sayfalar Listesi) var mı?							
6	Definitions (Açıklamalar) var mı?							
7	ATA Chapter Listesi var mı?							
8	Standart PREAMBLE (SHGM tarafından hazırlanan) var mı?							
9	Bir uçuş için kullanım dışı kabul edilen sistem ve teçhizata yönelik prosedür var mı?							
10	MEL'de Operasyon ve Bakım Prosedürleri (Operation (O) and Maintenance (M) Procedures) belirtilmiş mi?							
11	MEL'in tam ve güncel olduğunu belirten bir kontrol sistemi							
	oluşturulmuş mu?							
12	MEL'de MMEL'de bulunan tüm ekipmanlar var mı? "Number Required for Dispatch" (Dispeç için Gereken Miktar)							
	bölümündeki rakamlar birbirleriyle uyumlu mu?							
13	" Remarks or Exceptions" kolonunda:							
13.a	MMEL'deki tüm sınırlamalar ve özel hükümler var mı?							
13.b	Gerekli tüm bakım yöntemleri "M" ile operasyon yöntemleri "O"							
10.0	ile belirtilmiş mi?							

13.c	MMEL'de geçen "As required by FAR/JAR", "As required by Operating Requirements" ifadelerinin yer aldığı ekipmanlar için SHT MMEL/MEL Talimatının Ek-8'inde yer alan gereklilikler belirtilmiş mi?								
13.d	RVSM, RNAV, RNP, ETOPS, MNPS ve LVO gibi özel yetkiler için gerekli açıklamalar belirtilmiş mi?								
14	MMEL'in değişken bir "Number Installed" belirttiği durumlarda, hava aracının üzerinde takılı teçhizatın gerçek miktarı MEL'de belirtilmiş mi?								
	NOTLAR:								
KONT	ROL EDEN	KONTROL EDEN							
Bakın	Bakımdan Sorumlu Yönetici Personel Kalite Sistem Yöneticisi								
İmza ·	- Tarih	İmza - Tarih							

### EK-10

REPUBLIC OF TURKEY									
MINISRTY OF TRANSPORT AND COMMUNICATION									
DIRECTORATE GENERAL OF CIVIL AVIATION									
MINIMUM EQUIPMENT LIST									
AIRCRAFT:		REV	ISION	NO:	PAGE NO:				
	DATE:								
1. SYSTEM,	2. RE	PAIR C	ATEGO	RY					
SEQUENCE NUMBERS & ITEM	3. NU	B. NUMBER INSTALLED							
			4. NU	MBER REQUIRED FC	R DISPATCH				
				5. REMARKS AND E	XCEPTIONS				
24. ELECTRICAL POWER									
24-38 BAT HOT									
Caution or Warning Lights C 2 0 (O) May be inoperative provided the associated Battery Temperature Indi operates normally.									

### PLACARDING

Placard appropriate BAT HOT caution/warning light(s) at annunciator panel in the cockpit.

### **OPERATING PROCEDURES:**

- 1. Apply DC power to aircraft DC electrical system.
- 2. At BATTERY TEMPERATURE monitor panel, check that the associated battery temperature indication(s) (Main and/or Aux) reads approximately ambient (OAT) temperature.
- **NOTE:** If aircraft has been recently operated and/or sitting in the hot sun, the indicated temperature may be higher. If the outside air temperature (OAT) is below 15°C, only the first green segment on indicator will be illuminated.

### **MAINTENANCE PROCEDURES:**

None required.

SHT MMEL/MEL Rev. 01

REPUBLIC OF TURKEY									
MINISRTY OF TRANSPORT AND COMMUNICATION									
DIRECTORATE GENERAL OF CIVIL AVIATION									
MINIMUM EQUIPMENT LIST									
AIRCRAFT:	AIRCRAFT: REVISION NO: PAGE NO:								
1. SYSTEM,	2. REF	PAIR C	ATEGO	RY					
SEQUENCE NUMBERS & ITEM	3. NUI	. NUMBER INSTALLED							
			4. NU	MBER REQUIRED FC	R DISPATCH				
				5. REMARKS AND E	XCEPTIONS				
21. AIR CONDITIONING									
21-3 Equipment Cooling       D       1       0       (M) May be inoperative provided the equipment cooling fan is deactivated.									

### PLACARDING:

Placard Equipment Cooling Fan on avionics bay door above wardrobe.

### MAINTENANCE PROCEDURES:

- 1. Open and clip the associated FAN circuit breaker at right 115 VAC BUS on avionics circuit breaker panel.
- 2. Conditioned air is made available within 30 minutes for OAT above 30° C, aircraft on ground and power on.

NOT 1: Airbus A318/319/320/321, A330/340 tipi uçaklar için MEL hazırlanırken Airbus tarafından yayınlanan MMEL sayfa formatı kullanılabilir. Diğer tüm hava araçları için yukarıda yer alan MEL formatı kullanılmalıdır.

NOT 2: MEL'de gerçekleştirilecek olan revizyonlarda sayfalarda revize edilen kısımlar yukarıda belirtilen şekilde sağ tarafında çizgi ile belirtilecektir.