Summary of easyJet manuals

Airbus Edition, Version 2.0.2

Jon Hurst

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Change log

1. Change highlighting

Change highlighting is only available in the online version. This may be found at:

https://hursts.org.uk

2. Changes since version 2.0.1

- Section 2.1, “Flight crew” updated with ability of flight crew to operate under all three AOCs without additional training.
- Section 2.1, “Flight crew” updated with new sector count requirements to be considered experienced.
- Section 2.2, “Cabin crew” updated with new ability to operate more than one of a series of sectors with reduced cabin crew.
- Section 2.2, “Cabin crew” updated with requirement to complete both an ASR and a CSR in the event of reduced cabin crew operation.
- Section 2.2, “Cabin crew” updated with rules regarding the interchange of cabin crew between AOCs.
- Section 2.2, “Cabin crew” updated with option for a non-operating cabin crew member to assist whilst awaiting the arrival of the operating cabin crew member.
- Section 2.3, “Positioning crew” updated with requirement for non-flight duty positioning crew entering the UK to pass through normal passenger channels.

3. Changes since version 2.0

- Section 6.5, “Pre-flight fuel planning” updated to include the use of Statistical Contingency Fuel in the determination of contingency fuel requirements.

- Section 6.5.1, “Reducing fuel loads to allow increased payload” updated to include Statistical Contingency Fuel in En-Route Alternate alternative flight planning procedure.

Chapter 1. Authority, Duties and Responsibilities of a Commander

The commander has overall responsibility for the safety of the aircraft, its occupants and its cargo, and the authority to issue any commands required to secure this. He has the authority to increase any safety margin, including aerodrome operating minima, as he sees fit. In an emergency situation, he has the authority to override any rule or procedure in the interest of safety.

He must ensure that:

1. All SOPS and checklists are fully complied with.

2. The weather will not infringe operating minima and the required alternates are available.

3. Ground facilities and services required for the planned flight are available and adequate.

4. The correct types and quantities of fuel, oil and oxygen are carried, and uplifts are recorded.

5. Crew are briefed with any relevant information.

6. The aircraft is airworthy with any unserviceable equipment compliant with the CDL or MEL and all emergency equipment easily accessible for immediate use.

7. The preflight inspection has been completed, and that all required documents, maps and charts are onboard and valid.

8. No loose articles are present in the flight deck.

9. The aircraft is within its weight and balance envelope and the load is properly secured.

10. The available aircraft performance is sufficient for all phases of the proposed flight.

11. Any person, or any part of the cargo, which may represent a potential hazard to the safety of the aircraft or its occupants is disembarked. This includes:

    - Persons under the influence of alcohol or drugs, to the extent that they pose a risk.

    - Inadmissible passengers, deportees or persons in custody if they pose any risk.

12. A full safety briefing, including exits and equipment carried, is given to the passengers.

13. Crew members are not permitted to perform any activity during critical phases of flight except those duties required for the safe operation of the aircraft.

14. A continuous listening watch is maintained on the appropriate radio frequencies.

15. The cabin is secured (passengers secured and cabin baggage properly stowed) for taxi, take-off, landing and whenever turbulence is expected.

16. The flight data recorder is not disabled, switched off or erased during flight nor erased after flight in the event of an accident or an incident subject to mandatory reporting.

17. The flight deck door is locked at all times between engine start and engine shutdown, with the exception of when it must be opened for physiological reasons.

18. The aircraft technical log is completed and all relevant information is transmitted via ACARS. If ACARS is unavailable, a journey log must be sent.

19. At the end of the duty, the aircraft is handed over to another commander or a qualified engineer, or it is properly secured.

20. A post flight debrief is carried out as deemed appropriate.

21. Flight envelope with required retained paperwork is delivered to crew room.

22. Any manoeuvre in response to airborne collision avoidance system resolution advisory is reported to the competent authority.

23. Any bird strikes or bird hazards are reported promptly to the relevant ATS and any bird strike resulting in damage or malfunction is reported to the competent authority.

24. Pilot uniform standards are maintained.

[EOMA 1.4, EOMA 2.3.2/3, EOMA 8.1]

Chapter 2. Crew composition

2.1. Flight crew

The minimum flight crew is two pilots, at least one of whom must be a Captain. In addition, a safety pilot fully qualified to operate in the right seat must be carried for base training and line flying under supervision until positive release.

The maximum age for a pilot is 65. Not more than one pilot may be aged 60 years or more. Pilots with Operational Medical Limitations must not fly together and must not fly with pilots aged 60 years or greater.

Inexperienced (***) flight crew must not operate together. To be considered experienced, crew must have completed 100 flight hours and 50 sectors within 120 days of final line check or 150 flight hours and 50 sectors after final line check without time limit. A Captain, in addition, must successfully complete their first recurrent simulator session and a first officer must complete a continuation training flight.

At least one flight crew member must be present for boarding.

The minimum crew for taxiing is a Commander and a second pilot, both qualified on type.

The commander must sit in the left seat unless required to command from the right seat in order to conduct a training detail. Captains may only operate from the right seat if they have undergone specific training and recurrency checks (see EOM 4.2.2).

All AOC holders may interchange flight crew; conversion training covers the requirements of all three AOCs. Any differences between AOCs are published by NTC. Crew are required to ensure they are familiar with current differences.

[EOMA 4.1.1, EOMA 4.2]

2.2. Cabin crew

The minimum cabin crew is 4 unless operating an A319 with seat blockers, in which case it is 3, or operating a non-commercial flight with less than 19 passengers, in which case cabin crew are not required.

One Cabin Crew member will be nominated by the company as Senior Cabin Crew Member.

Cabin crew are considered inexperienced (i.e. ***) until they have completed 40 sectors (or 20 sectors with caveats) as operating crew. At least two cabin crew members must be experienced.

In extreme circumstances the cabin crew complement may be reduced to 3 providing:

- Authorisation is received from the duty pilot.
- The aircraft does not dispatch from its originating base.
- The aircraft only operates its originally planned series of flights; this may include stops at non-originating easyjet bases and/or a nightstop.
- A maximum of 150 passengers (not including infants or the original cabin crew member who is no longer operating) are carried.
- All passengers are seated in a position where they can adequately view the safety demonstration.
- If required, the commander may nominate a new SCCM, provided the nominee has a minimum of 12 months operational experience and at least 20 sectors on type.
- An ASR and a CSR are completed to report the circumstances of the reduction.

In general, cabin crew who have become unfit to fly should be offloaded. Under extraordinary circumstances, the commander may elect to repatriate the cabin crew member.

It is permissible to board with only SCCM, CC2 and CC3 provided that:

- A maximum of 150 passengers are boarded.
- A member of the flight crew is on the flight deck.
- The aircraft is not being fuelled or de-fuelled, and electrical power is available.
- SCCM is present at forward door, CC2 is present at rear door and CC3 is present in the middle of the cabin, taking responsibility for the overwings.

Alternatively, it is permitted to prepare the aircraft, carry out pre-flight safety and security checks and board with the assistance of a non-operating crew member. The non-operating crew member must be qualified on type and fit to fly. If not in uniform, a high visability vest must be worn and a PA made to inform the passengers that the crew member is part of the operating crew during boarding. The SCCM must brief the non-operating crew member on their required duties and their door responsibility during boarding, but they do not need to have taken part in the pre-flight brief. They must remain with the aircraft until the rostered crew member arrives and has been suitably briefed.

Use of UK AOC cabin crew is permitted under the Austrian AOC. Interchange of cabin crew is not permitted between the UK and Swiss AOCs.

[EOM-A 4.1.3, EOM-A 4.1.4]

2.3. Positioning crew

Positioning crew will normally be booked as passengers, although in exceptional circumstances staff may be carried as "non-operating extra crew". This requires the authorisation of the duty pilot or the Network Duty Manager. In this case, crew must be shown on the crew list.

Crew positioning for a flight duty may ramp transfer or remain on aircraft as appropriate.

Crew positioning for a non-flight duty and entering the UK must pass through normal passenger channels and present themselves at immigration

control. Otherwise crew positioning for a non-flight duty may use crew check-in/ check-out procedures provided that they do not carry any goods that need to clear customs. If booked as a passenger, they must have a valid boarding pass.

[EOM-A 4.5, EOM-A 4.6]

2.4. Inspectors and Auditors

Flight Ops Inspectors may, at any time, board any easyJet aircraft and enter and remain on the flight deck unless it is the commander's opinion that this would endanger the safety of the aircraft.

easyJet Compliance Monitoring Auditors may also from time to time fly on easyJet aircraft to conduct a flight inspection.

EOMA 8.3.13 lists documentation and procedures for allowing persons other than operating crew access to the flight deck.

[EOM-A 4.7/8]

Chapter 3. Qualification and Recency Requirements

The minimum qualifications to act as a commander are:

1. A UK or CH EASA-FCL ATPL with instrument rating and relevant type rating

2. Class I medical

3. ICAO level 5 language proficiency requirement (level 4 for EZS)

4. Valid ATQP recurrent checks:

Test/ Training	Validity
Licence Proficiency Check [a]	12 months [b c]
Line Oriented Evaluation [d]	12 months [bc]
Line check	24 months [bc]
Dangerous Goods	24 months [bc]
Aviation Security	12 months [b]
Emergency and Safety Equipment Training	24 months [bc]
Crew Resource Management	Three year recurrent training cycle

[a]Incorporates Operator Proficiency Check, Instrument Rating renewal, elements of CRM and elements of Ground and Refresher Training.

[b]The period of validity starts on the last day of the month in which the training and/or test was completed.

[c]For renewals, the period of validity can start on the expiry date of the current check. To be considered a renewal, the training and/or test must be completed a maximum of three months before that expiry date.

[d]Incorporates elements of CRM and Ground and Refresher Training.

5. Three take-off and landings as an operating pilot in the preceding 45 days. A simulator may be used.

6. In a simulator, two Cat III approaches including 1 landing and 1 go-around at lowest authorised RVR and one takeoff, also at lowest authorised RVR. This requirement is usually satisfied by the LPC.

7. 3500 factored hours of which 500 hours must be on a medium or large jet transport.

8. Successful completion of a Command Course.

[EOM-A 5]

Chapter 4. Crew Health Precautions

4.1. Alcohol

Do not consume any alcohol within 10 hours of a duty, and consume no more than 5 units of alcohol within 24 hours of a duty.

Crews are obliged to comply with random breathalysing, but should ensure that it is not carried out in front of passengers.

Alcohol must never be consumed whilst in uniform in a public place.

Alcohol must not be taken onto the flight deck during flight.

[EOM-A 6.1.1]

4.2. Cosmic radiation

Statutory directives state that the acceptable radiation exposure of aircrew is 6mSv/yr. Radiation exposure is modelled by easyJet to try to prevent exposure above this level. easyJet continuously monitors estimated radiation doses; personal estimated exposure is published on AIMS.

Embryos and foetuses are particularly susceptible to harm from cosmic radiation. Crew should not fly when pregnant.

[EOM-A 6.1]

4.3. Medication

The use of non-prescribed narcotics or sleep inducing drugs is forbidden.

Do not operate within 48 hours of a general anaesthetic or within 24 hours of a local anaesthetic.

It is acceptable to operate whilst taking non drowsy cold remedies such as Sudafed. Seek medical advice before operating whilst taking any other medication.

[EOM-A 6.2, EOM-A 6.4]

4.4. Immunisation

easyJet does not currently fly to any destination requiring vaccinations beyond those recommended for everyday life in Europe. Any change to this situation will be notified by NTC.

[EOM-A 6.5]

4.5. Blood donation

Crew should not donate blood within 24 hours of a duty.

[EOM-A 6.1.6]

4.6. Diving

Crew should not fly within 48 hours of diving to a depth exceeding 10m. Crew should avoid any diving requiring the use of SCUBA equipment within 24 hours of a duty.

Crew who have been treated for decompression sickness must not fly within 72 hours of recovery.

[EOM-A 6.7]

4.7. Surgery

Aeromedical advice should be sought before returning to duty following any surgical procedure.

[EOM-A 6.11]

4.8. Hypoxia

Table 4.1. Time of useful consciousness

Pressure altitude	Time
18000ft	30 minutes
25000ft	2-3 minutes

Pressure altitude	Time
30000ft	45-75 seconds
45000ft	12 seconds

[Human Factors For Pilots, Green et al.]

4.9. Food poisoning

Crew who are operating together should not have the same meals. This includes crew food and eating together when downroute or on airport standby.

If food poisoning from crew food is suspected, an ASR must be completed and a sample brought back to local base management team for further investigation.

[EOM-A 6.8]

4.10. Laser attacks

To mitigate the attack, look away, increase the brightness of interior lights and avoid rubbing your eyes. Seek medical advice if symptoms persist.

Notify ATC and file an ASR.

[EOM-A 6.18]

Chapter 5. Flight Time Limitations Scheme

5.1. Warning

With the introduction of EASA FTL and ongoing union negotiations across multiple nations, FTL has become a fast moving, confused and highly complex topic. This section represents my best understanding of how easyJet FTL applies to a UK pilot as of 6th April 2016.

5.2. Definitions

Duty period: Any continuous period where a crew member is required to carry out a task associated with easyJet business.

Flight duty period: The period between reporting to operate a flight or series of flights and the on blocks time of the last sector operated.

Local Night: 8 hours within the period 22:00 to 08:00 local time.

5.3. Days Off

A singleton day off is defined as at least 36 hours and 2 local nights. Two consecutive days off must include 3 local nights.

5.3.1. 5453 ruleset

FTL days off restrictions will always be satisfied by the fixed pattern part of the 5453 ruleset, even when a day off has been violated by a delay on the last day of a block of late duties.

The rostering agreement specifies that 10 days off must be achieved in the 28 day reserve period, 3 of these being the final three days. A duty block may consist of a maximum of 5 FDPs, although a sixth is exceptionally permissable to return to home base following unforseen circumstances. A singleton day off may only be followed by a maximum 4 FDPs, then at least two days off. Two consecutive days off must be planned within any 10 consecutive days.

5.3.2. Other rulesets

Each ruleset has its own highly complex system for allocating days off, with little commonality between them. Consult FRMS A.10 for the gory details.

5.4. Required rest

From home base, the rest required before operating a duty is 12 hours or the length of the previous duty period, whichever is greater. When operating away from home base, EASA requires 10 hours plus total travelling time above one hour or the length of the previous duty, whichever is greater. If easyJet provides “Suitable Accomodation” at home base, the away from base limits apply. easyJet adds to this a “planning limit” of 12 hours rest away from home base.

EASA adds the concept of the “Recurrent Extended Recovery Rest Period,” henceforth RERRP, a rest period of 36 hours including 2 local nights that must occur with a maximum separation of 168 hours (7 days), and at least twice a month must include 2 local days, a local day being a 24 hour period starting at 00:00L.

EASA also adds “Time Zone Differences” as a factor in determining minimum rest. If an FDP involves a change of 4 hours or more, consult EOMA 7.1.11.6.

5.4.1. Reducing required rest

The commander may, in response to unforeseen circumstances *occuring at or after reporting time*, at his discretion, reduce the minimum rest requirement such that at home base it is a minimum of 12 hours and out of base it is a minimum of 10 hours. At most 2 reduced rest periods can occur between two RERRPs. easyJet adds to this that when away from base, a minimum of 10 hours must be spent at the hotel. Any reduction must be deducted from the subsequent maximum FDP, and must be appended to the next minimum rest period.

An added EASA twist is that the commander can *increase* required rest without limit on behalf of all crew. More than 2 hours gets the duty pilot involved.

EASA introduces the concept of “Rostered Reduced Rest”. easyJet may, for “defined and specific pairings”, roster a reduction of required rest to a minimum of 12 hours at home base and 10 hours away from base, providing that the period 01:00L to 05:59L is included. The crew member must be notified at latest prior to undertaking the immediately preceding non reduced rest period. After roster publication, only one such reduced rest period may be rostered between two RERRPs.

5.5. Maximum Flight Duty

The maximum allowable flight duty for flight crew is governed by the country in which they are based, the number of sectors flown and the report time in local time. For Acclimatised[1] UK pilots:

Table 5.1. UK Flight Crew Maximum Flight Duty

	Sectors [a]		
Local time	**1 or 2**	**3**	**4**
05:00 - 05:59	11:15	9:30	9:00
06:00 - 07:59	13:00	11:30	10:45
08:00 - 12:59	13:00	12:30	11:45
13:00 - 13:29	13:00	11:30	10:45
13:30 - 13:59	12:45	11:30	10:45
14:00 - 14:29	12:30	11:30	10:45
14:30 - 14:59	12:15	11:30	10:45
15:00 - 15:29	12:00	11:30	10:45
15:30 - 15:59	11:45	11:15	10:45
16:00 - 16:29	11:30	11:00	10:30
16:30 - 16:59	11:15	10:45	10:15
17:00 - 21:59	11:00	10:30	9:45

[1] Acclimatised means reporting in a place where the local time is no more than two hours different from local time at home base.

	Sectors [a]		
Local time	**1 or 2**	**3**	**4**
22:00 - 04:59	11:00	9:30	9:00

[a]For 5 or more sectors, refer to the full table in FRMS Appendix I

Compared to UK flight crew, UK Cabin crew have the same limits for 1 and 2 sectors and less restrictive limits for 3 or more sectors. Crew based in Italy, Netherlands, Portugal and Spain have the same limits as UK cabin crew. Crew based in France and Germany have more restrictive limits than UK flight crew for 1 and 2 sectors but less restrictive limits for 3 or more sectors. These tables are available in FRMS Appendix I.

5.5.1. Increasing maximum flight duty

The company may extend the maximum FDP by up to one hour in accordance with table 7.4 in EOMA 7.1.5.4.4. This must be pre-planned and rest periods around the extended duty are increased, either by 4 hours post FDP or by 2 hours both pre and post FDP. This cannot be combined with split duty and may not occur more than once in 7 consecutive days.

The commander may, in the case of unforeseen circumstances occuring at or after reporting time, at his discretion, increase maximum flight duty by at most 2 hours. If unforeseen circumstances after take-off on the final sector result in an exceedance of this, the flight may continue to planned destination or alternate. If the flight is operating with extended FDP, the commander's discretion is applied to the relevant basic table rather than the extended table.

EASA also allows for the commander to reduce allowable flight duty period by an unlimited amount on behalf of all crew. More than 2 hours gets the duty pilot involved.

The company can attempt to increase maximum flight duty by contacting crew before they have left their place of rest and delaying the report time. Cabin crew may be contacted 2 hours before report, and flight crew, 90 minutes before report. When the delay is less than 4 hours, maximum FDP is based on the *original* reporting time but FDP starts from the delayed reporting time. If the delay is more than 4 hours, the maximum FDP is based

on the *more limiting* of the original and delayed reporting times, and the FDP starts at the original reporting time plus 4 hours. A delay of more than 10 hours is considered a rest period. Further rules apply if a second delay notification is given, but this should only occur where a base has no crew facilities.

The company may also increase maximum FDP through the use of split duty. Where a crew has a break on the ground of between three and ten consecutive hours, 50% of the break may be added to the maximum FDP. The FDP continues throughout the break, and a number of caveats with regards to accommodation and post and pre-flight duties apply (see FRMS Appendix E). A split duty cannot follow reduced rest.

If cabin crew are required to report earlier than flight crew, the cabin crews' maximum FDP is extended by the difference in report time, up to a maximum of one hour.

5.6. Consecutive night, early start and late finish duties

If any part of a duty falls within the period 02:00 to 04:59 local time (in the time zone that the crew member is Acclimatised), then it is a "night duty". Consecutive night duties are only allowed with the following restrictions:

- Limited to a maximum of 4 sectors per duty.
- If two consecutive night duties are scheduled, the preceding duty must finish by 23:59 local time.
- If three consecutive night duties are scheduled, the preceding duty must finish by 21:00.
- No more that three consecutive night duties can be scheduled.

EASA introduces the concept of "Disruptive Schedule", and easyJet operates under the "late type". This defines an "Early Start" Duty Period as one starting in the period 02:00L[2] to 06:59L, and a "Late Finish" as a duty pe-

[2]EOMA 7.1.2.7 defines "Early Start" as 05:00L to 06:59L, but FRMS Appendix A overrides this.

riod finishing between 00:00L and 01:59L. A “Disruptive Duty” is a duty where any part occurs between 01:00L and 06:59L. “Consecutive” duties are defined as separation of less than 34 hours between disruptive duties of a given type.

If crew perform 4 or more disruptive duties between 2 RERRPs, the second RERRP is futher extended to be 60 hours (2½ days).

4 or 5 consecutive Early Start duties are allowed provided:

- 2 days off precede 4 consecutive Early Starts and 3 days off precede 5 consecutive Early Starts.
- No more than 1 of the FDPs starts in the period 02:00 to 04:59, and this FDP is a maximum of 2 sectors.
- 72 hours off follow.

Otherwise, a maximum of 3 consecutive disruptive duties are allowed, and a maximum of 4 disruptive duties are allowed in any 7 day period.

Groupings of 10 Early Start duties must be separated by at least 5 days free of such duties.

5.6.1. Ignoring consecutive night, early start and late finish duty limits

If an individual crew member has violated the 21:00 finish time before 3 consecutive night finishes by less than 3 hours, if he/she is “willing”, the published roster may continue. This does not appear to require use of commander's discretion.

Under EASA, there does not appear to be any specific authorisation for a commander to exercise discretion to allow violation of any of the consecutive disruptive duty limits. The closest to an authorisation is in FRMS Appendix B para 1, which allows the commander to “modify the limits on flight duty, duty and rest periods in the case of unforeseen circumstances in flight operations, which start at or after the reporting time.” The Appendix

then goes into detail for other forms of commander's discretion, but notably omits consecutive disruptive duties.

5.7. Cumulative limits

Table 5.2, “Cumulative limits” shows the cumulative duty time and block time limitations applicable to flight crew operating under the 5453 ruleset and to cabin crew operating under the cabin crew default ruleset:

Table 5.2. Cumulative limits

	Flight Crew		Cabin Crew	
Period	**Duty hours**	**Block hours**	**Duty hours**	**Block Hours**
7 days	55 [a] [b]		60	
14 days	95 [c] [b]		110	
28 days	190	100	190	100
12 weeks	480	270	525	270
6 months		550		550
9 months		750		750
12 months	1880	900	2000	900

[a] Can be increased to 60 hours where unforeseen delays occur on the day of operation.

[b] This limitation is in the Rostering and Crewing Agreement, amended 01/08/2008, which supersedes the limit in FRMS A.10.4.

[c] Can be increased to 100 hours where unforeseen delays occur on the day of operation.

Duty time spent on "contactable" does not count towards cumulative duty hours. Time spent on home standby counts in full except, when not called out, time spent on standby during the period 22:00 to 08:00 local time only counts half.[3] A strange hybrid standby where crew are pre-advised that at least three hours notice prior to report will be given is also possible, and time spent on such a standby only counts half towards cumulative duty limits.

[3] This is an easyJet variation; under vanilla EASA only 25% of time spent on home standby contributes to duty time.

5.7.1. Ignoring cumulative limits

The commander, at his discretion, may “exceptionally“ allow violation of any cumulative limit provided the exceedance was only apparent after the commencement of the affected FDP. The commander must have been aware of the exceedance — this discretion cannot be exercised retrospectively.

5.8. Standby

5.8.1. Home Standby

Maximum planned duration is 8 hours; a call out for a duty commencing beyond 8 hours is allowed. The assigned report time must be at least 90 minutes from call out. Crew will be given a maximum of 2 hours notice before report if called between 23:00L and 07:00L.

If called out, FDP is calculated from report time.[4] Maximum FDP must be reduced by the amount of home standby worked in excess of six hours. For home standby worked between 23:00L and 07:00L, only the time after contact from crewing counts as standby worked for the purposes of this rule. If called out for a split duty, for six hours, read eight hours.

Home standby does not count as duty for the purposes of calculating minimum rest requirement.[5] It counts towards cumulative duty limits as described in Section 5.7, “Cumulative limits”. It also counts as disruptive duty if it occurs in the bands described in Section 5.6, “Consecutive night, early start and late finish duties”.

[4]Under the old scheme, the most restrictive max FDP of the standby start time and report time was generally used. I could find nothing similar under EASA, so I assume that it is simply report time that is used in the tables.

[5]If more than 12 hours is spent on home standby and no assignment is received, the minimum rest requirement is equal to the time spent on home standby. EASA actually allows home standby of 16 hours duration, hence this rule. easyJet at this time does not intend to have home standby of more than 8 hours, so this rule should not affect easyJet’s operation for the moment.

5.8.2. Airport Standby

Maximum planned duration is 7 hours; a call out for a duty commencing beyond 7 hours is allowed. If called out, the FDP is calculated to start at *notified report time*, although maximum FDP must be reduced by any time spent on Airport Standby in excess of 4 hours and the maximum time from commencing Airport Standby to finishing the assigned FDP is 16 hours.

Time spent on airport standby counts in full towards cumulative duty limits and minimum rest requirements.

Accomodation that provides the crew member the possibility of sleep must be provided. Since easyJet crew rooms do not yet have such a facility, Airport Standby is not in use at this time.

5.8.3. Airport Duty

Maximum planned duration is 7 hours; a call out for a duty commencing beyond 7 hours is allowed. For the purposes of all limits, Airport Duty counts as a normal FDP, commencing at report.

5.8.4. Contactable

easyJet defines contactable as a period of no longer than one hour between 06:00 and 22:00 when a crew member will be available to receive a message. At least 10 hours notice will be given prior to any assigned duty. It does not count as duty for any purpose.

EASA uses the term “contactable” to refer to a new concept of “reserve”, where for 7 consecutive days you must be available to the company for a 16 hours period with an eight hour period specified in which you must sleep. EOMA 7.1.10 refers you to FRMS Appendix A, which refers you to the definition above, so hopefully easyJet is not intending to utilise EASA's reserve concept.

5.9. Transitions

For the purposes of transition control:

- A “morning duty” (MD) is a duty with a report time between 00:00L and 09:29L which finishes befor 17:59L.
- An “evening duty” (ED) is a duty starting after 09:30L that finishes after 18:00L.
- A “dual duty“ (DD) is a duty with a report time between 00:00L and 09:29L which finishes after 18:00L.
- A “neutral duty” lies entirely within the period 09:30L to 17:59L

Only one transition is allowed per “duty block”. A “duty block”, in this case, is defined as a series of duties bookended by rest periods of 34 hours or greater that contain two local nights.

The latest off duty time following a MD-ED transition is 02:00L.

An ED-MD transition must include a rest period incorporating a local night.

A dual duty counts as a single transition (i.e. MD-DD-ED is not two transitions).

For UK pilots, the BALPA consolidated scheduling agreement (BCSA), dated 26th November 2014, adds further transition control:

- Only one transition is allowed per calendar month.
- Transitions are not allowed between day 4 and 5 of a duty block.
- If a dual duty is occurs on day 4 of a duty block, only a neutral duty or a rest day may be scheduled for day 5.
- No more than one ED is allowed in a late block.

Transitions due to disruption “on the day” are not considered a violation of these rules, but must be taken into account for future rostering.

5.10. Pre and post flight duties

For “normal” flight duty periods, a minimum of 1 hour must be planned for pre-flight duties, and a minimum of 30 minutes must be planned for post-

flight duties. If post-flight duties exceed the standard allowance, crewing must be notified. For training and positioning refer to EOM-A 7.1.5.1.

The practice of using non-standard reporting times to move a duty into a less limiting FDP band is prohibited.

The commander may, at his discretion, reduce these times. The company may not. At the very least, one member of flight crew *must* receive a briefing allowance of 45 minutes. A flight deck member or the cabin manager having received less than 30 minutes briefing allowance will *always* trigger an investigation.

5.11. Miscellaneous

5.11.1. Positioning

All time spent positioning counts as duty time for the purposes of all FTL limits. Time spent positioning prior to operating counts as FDP, but does not count as a sector.

5.11.2. 6 sector duties

No more than 3 consecutive 6 sector duties are allowed.

Chapter 6. Flight preparation instructions

6.1. Minimum flight altitudes

6.1.1. Definitions

Minimum Flight Altitude (MFA) is the generic term for the minimum altitude at which it is safe for an aircraft to fly.

When operating on a defined route segment, national authorities may have published the Minimum Enroute IFR Altitude (**MEA**) for that segment. This altitude (or flight level) ensures obstacle clearance and navaid reception. When available, MEA is published in black on the LIDO en-route charts below the airway designator. Alongside, in red, LIDO publishes Minimum Terrain Clearance Altitude (MTCA). This is a LIDO derived value, based on rounding up the elevation of the highest obstruction within 10nm of the airway to the nearest 100ft, then adding 1000ft tor terrain below 6000ft or 2000ft for terrain above. MTCA is always available.

LIDO OFPs present Route Minimum Off Route Altitude (Route MORA). This is a LIDO derived value based on the highest terrain within 20nm of a given route segment. For terrain up to 5000ft Route MORA provides 1000ft clearance; for higher elevations it provides 2000ft clearance.

When not operating on a defined route segment, LIDO presents area obstacle clearance data in the form of a Minimum Grid Altitude (**MGA**). MGA is calculated by rounding up the highest obstruction within the respective grid area to the next 100ft then adding either 1000ft for obstructions up to 6000ft or 2000ft if they are higher. The lowest indicated MGA on LIDO charts is 2000ft. MGA is shown in purple if it is less than 10000ft and in red if it is greater.

Minimum Sector Altitude (**MSA**) is the minimum altitude that provides 1000ft of obstacle clearance within 25nm (unless otherwise specified) of a specified navigation facility. It is published as a segmented circle on LIDO plates. It is for emergency use only, and does not necessarily guarantee navaid reception.

Additionally, various instrument flight procedure altitudes are calculated by national authorities when designing instrument procedures, and these are published on LIDO instrument plates. In particular Minimum Radar Vectoring Altitudes (MRVA) are provided to ATC and may be flown when the aircraft is under positive radar control. The LIDO MRC chart shows MRVAs to allow cross checking of ATC instructions.

[EOM-A 8.1.1, EOMA 8.1.1.4, LIDO route manual]

6.1.2. Corrections

All published altitudes must be corrected for low temperatures. Altitudes within 5000ft of the elevation of the source of a QNH measurement can be corrected for temperatures below -10°C using the following table:

Table 6.1. Low temperature altitude corrections

	Height above QNH source (feet)								
OAT	**200**	**300**	**400**	**500**	**1000**	**2000**	**3000**	**4000**	**5000**
-10°C	20	30	40	50	100	200	290	390	490
-20°C	30	50	60	70	140	280	420	570	710
-30°C	40	60	80	100	190	380	570	760	950

To correct higher altitudes for temperatures below ISA, a conservative rule of thumb is to add 1% of the altitude for every 2° that the actual temperature is below ISA, e.g for a 20,000ft MEA with ISA-20° add 200x20/2=2000ft.

When operating in low atmospheric pressure conditions with an altimeter setting of 1013, the aircraft will be ~30ft below the indicated altitude for every millibar that the QNH is below 1013. This can be applied as a positive increment to a published minimum altitude to calculate a minimum flight level.

A combination of high winds and high terrain can result in localised variations in atmospheric pressure; consideration should be given to increasing MFA under these conditions.

Note that the Route MORAs presented on the LIDO OFPs do not have any of these corrections applied.

[EOM-A 8.1.1.3]

6.1.3. Operational requirements

Obstacle clearance for take-off and initial climb phase is provided by a combination of LPC performance calculation and SID and EOSID design.

Engine failure or loss of pressurisation may lead to a requirement for enroute descent. Currently, the highest obstacle affecting easyJet routes is Mont Blanc at 15,771ft. This is at least 2000ft below the A319 green dot one engine ceiling assuming MTOW and ISA+20. Thus, there are currently no special drift down diversion procedures in place. In the case of emergency descent following loss of pressurisation, all obstacles must be cleared by at least 2000ft. It is worth noting that the time of useful consciousness without supplementary oxygen is 30 minutes at 18,000ft.

For the approach phase, unless in visual contact with the ground with flight visibility sufficient to identify all relevant obstacles, flight below MSA should only be conducted on promulgated routes or instrument approach procedures or when being vectored at levels not less than MVA.

[EOM-A 8.1.1.4]

6.2. Usability of airports

easyJet is responsible for ensuring that all airports selected as destinations or alternates are adequate in all respects, including runway dimensions, obstacles, ATS, lighting, approach procedures, weather reporting and emergency services.

Rescue and Fire Fighting Service (RFFS) category 6 is the normal minimum acceptable level of cover. For some destinations, category 5 is considered acceptable; this will be notified on the OFP. Temporary reductions to category 4 is permitted at departure and destination for a period of time not exceeding 72 hours. Downgrade to category 5 at UK alternates and category 4 at non-UK alternates is acceptable. If a downgrade occurs during flight,

the Commander may elect to land at an aerodrome regardless of RFSS category if it is considered safer than diverting.

easyJet will categorise aerodromes from A to C in order of increasing difficulty. The category of an aerodrome is promulgated in its LIDO CCI page. Operation to a category B aerodrome requires self-briefing. Signing the OFP confirms that this has been done. Operation to a category C requires specific crew qualification.

[EOM-A 8.1.2.1, EOMA 8.1.2.5]

6.3. Aerodrome Operating Minima

All easyJet aircraftare Category C for the purpose of calculating operating minima.

Aerodrome specific take-off minima are presented on LIDO AOI charts. Pilot assessment of RVR for the initial part of the take-off run is permissable, but reported RVR must be considered for all other *relevant* reporting points.

Minima for instrument approaches (including circling approaches) are presented on the relevant LIDO approach plates. Where decision height is listed as “Company”, NO DH should be used for CAT3B and 50RA should be used for CAT3A. easyJet is not certified to use “Localiser Perfomance with Vertical guidance” (LPV) minimas. Only RVRs applicable to relevant segments of the runway need to be considered for landing. Required stop end RVR is always 75m and required mid-point RVR is always 125m unless ROLLOUT mode is used, in which case it is also 75m.

When RVR is not reported, and provided that required RVR ≥ 800m (after conversion), the following table may be used to convert Met Visibility to RVR for the purposes of complying with *landing* minima:

Table 6.2. Met Visibility to RVR conversion

Lighting Elements in Operation	**RVR = Met Visibility x**	
	Day	**Night**
HI approach and runway lighting	1.5	2.0

Lighting Elements in Operation	**RVR = Met Visibility x**	
	Day	**Night**
Any other type of lighting installation	1.0	1.5
No lighting	1.0	N/A

Circling minima should be used unmodified. It is permissible to descend prior to the final turn. However, descent below circling minima should only occur once the landing threshold has been identified and all surrounding terrain is in sight.

If standby ILS transmitters, markers, meteorological measuring equipment or lighting systems are downgraded, approach minima may need to be modified. A table is presented at EOM-A 8.1.3.5 for this purpose.

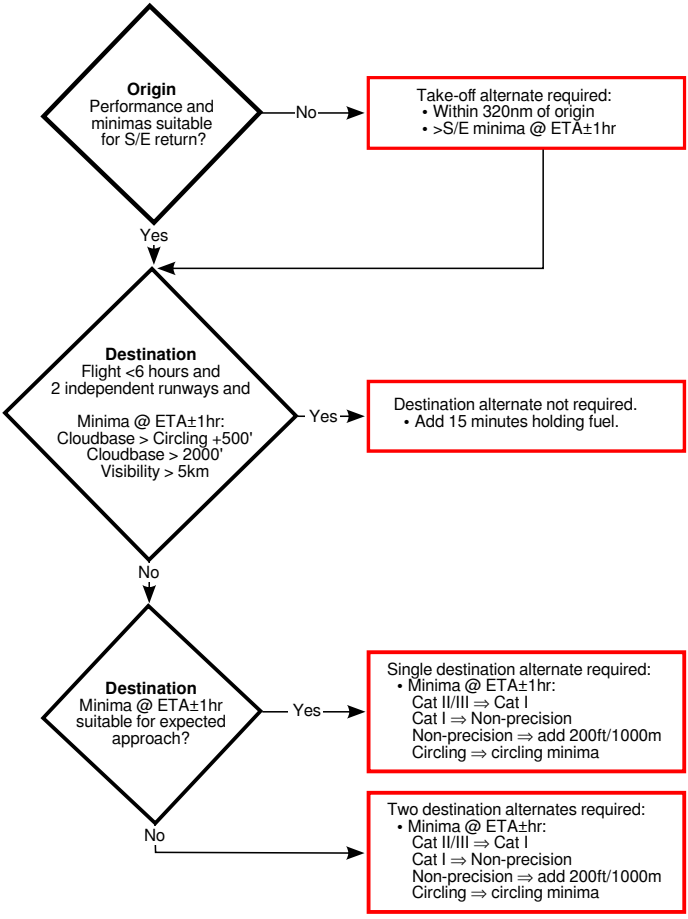
A visual approach requires Met Visibility ≥ 5km and cloud base ≥ 2,500ft. Visual approaches at night are authorised unless prohibited in the relevant CCI. Visual circuits must be flown at a height greater than 1500ft that ensures at least 500ft separation from obstacles.

MDA and DA must always be above OCA and must therefore be adjusted if OCA is increased by NOTAM.

[EOM-A 8.1.3, EOM-A 8.1.5, EOM-A 8.4.2.1]

6.4. Selection of alternates

6.4.1. Take-off and destination alternates



Note

1. Dispatch with no destination alternate should only be considered when payload or performance is limiting.

2. Two destination alternates are required when landing performance cannot be assured due to wind or runway state or when no meteorological information is available for the destination.

3. A table for interpretation of TAFs with regards these requirements can be found at EOM-A 8.1.2.4.

4. Runways may be considered independent if each runway has a separate approach procedure based on a separate approach aid and no conceivable blockage of one runway would render the other unusable.

[EOM-A 8.1.2]

6.4.2. Cruise alternates

In the case of an engine failure at any point along the planned route an adequate aerodrome must be available within 60 minutes single engine flying time. The equivalent distances are:

Table 6.3. Cruise alternate distances

A319	380nm
A320	400nm

[EOM-B 5.1]

6.5. Pre-flight fuel planning

The OFP presents the following values for use in pre-flight fuel planning:

TAXI — Fuel expected to be used prior to takeoff, including engine start, taxi and APU consumption. This figure should be adjusted when significantly increased APU burn is likely (e.g. ATC slots) or when significantly increased taxi times may occur (e.g. remote de-icing).

TRIP — Fuel required for all phases from take-off at departure aerodrome to landing at destination aerodrome. The assumed run-

ways and associated SIDs and STARs can be found on the OFP under "OFP ROUTE". This figure will need to be increased by 5kg per nm that actual routings are potentially longer than these assumed routings. The OFP also provides trip fuel corrections for carriage of more than minimum fuel and flight at non optimal levels.

CONT — The greater of 5% of planned trip fuel or 5 minutes holding over destination at 1500ft. If statistical contingency fuel (SCF) data is available, contingency fuel will be increased to either the 95th centile SCF or 99th centile SCF, depending on city pair, if applicable.

ALTN — Fuel for all phases from a go-around at applicable MDA/DA at destination to a landing at first alternate. The assumed runways and routings can be found on the OFP below the Nav Log block. This figure will need to be increased by 5kg for each nm that actual routings are potentially longer than these assumed routings. Where two alternates are required (see Section 6.4, “Selection of alternates”), this figure should be increased to the greater of the two alternate fuel burns. Note that this does not allow for flight to a second alternate after arriving at the first alternate.

FINRES — Final reserve fuel. This is the amount of fuel required to hold at 1500ft for 30 minutes assuming the tanks will be dry at the end of this period.

ADDNL — Usually zero. This is mainly used to add 15 minutes holding time when operating without a destination alternate under the terms of Section 6.4, “Selection of alternates”. It may also be used on routes where there will be insufficient trip fuel available to divert to an adequate alternate in the event of engine failure or loss of pressurisation at the most critical point.

EXTRA — Additional fuel loaded at the discretion of the flight crew. There is not much official guidance as to amounts; my personal ballpark figures for the A319/A320 are:

- 40kg per minute of potential extra holding
- 500kg per potential extra approach
- 30 minutes extra holding when LVPs are expected at destination
- 3kg per minute of extra anticipated anti-ice usage
- 2kg per minute of extra anticipated APU usage

TANKER Extra fuel that may be carried due to fuel price differential between origin and destination. Note that take-off and landing performance is not considered, and the planned margins against structural limits can reflect over-confidence in predicted ZFW data.

[EOM-A 8.1.7, EOM-B 5]

6.5.1. Reducing fuel loads to allow increased payload

Where payloads are such that the carriage of normal fuel loads results in exceedance of structural or performance limitations, EOM-A 8.1.7.6 presents a number of methods of reducing fuel requirements below those that would normally apply.

The simplest method is to reduce the trip fuel requirement once it is certain that the SID and/or STAR that will be flown requires less track mileage than those anticipated in the OFP route. The adjustment is 4kg per nm.

More significant reductions can be achieved when the conditions for not requiring a destination alternate (see Section 6.4, “Selection of alternates”) are met. In this case, the alternate fuel can be replaced with 15 minutes of holding at destination.

Finally, it is possible to reduce contingency fuel by declaring an “en-route alternate”. This procedure will, at most, allow contingency fuel to be re-

duced to 90th centile statistical contingency fuel (SCF), or, in the absence of SCF figures, 3% of trip fuel. The contingency can never be reduced below 5 minutes of holding at 1500ft at destination, and minimums of 204kg for A320 or 190kg for A319 also apply. Details of the procedure, including the somewhat complex determination of where an en-route alternate must be situated, may be found in EOM-A 8.1.7.6.4.

[EOM-A 8.1.7.6]

6.6. Weight and Balance

6.6.1. Structural weight limitations

The aircraft operating manual specifies maximum ramp, take-off, landing and zero fuel weights. The maximum take-off weight may also be reduced by easyJet to take advantage of reduced ATC charges; where this has been done, the new MTOW must be treated as a structural limit. These limitations are also presented in the weights block of the OFP.

The basis for calculations to determine compliance with these structural limits is the Dry Operating Weight (DOW). The DOW is the total weight of the aircraft with no usable fuel or payload. It is available at the top of the OFP, but the canonical value is that contained in the EFB database unless otherwise notified by a flight brief notice. Other weights are calculated as follows:

- Zero Fuel Weight (ZFW) = DOW + payload
- Ramp weight (RW) = ZFW + total fuel
- Take-off weight (TOW) = RW - taxi fuel
- Landing weight (LW) = TOW - trip fuel

In addition to the main structural weights, there are maximum load limits for the cargo compartments. These may be found in FCOM PER.LOD.CGO.

[EOM-A 8.1.8.1.1]

6.6.2. Payload calculation

The following standard weights may be used when calculating payload:

Table 6.4. Standard weights for passengers with hand baggage

Type	Weight
Male	93kg
Female	75kg
Child (Age 2-11 inclusive)	35kg
Infant(Age<2)	0kg

Table 6.5. Standard weights for checked baggage

Type of Flight	Weight
Domestic[a]	11 kg
Within the European Region	13 kg
Intercontinental	15 kg
All Other	13 kg

[a]Domestic flights are those where origin and destination are within the same state

Table 6.6. Standard weights for crew

Crew Position	Weight
Flight Crew	85 kg[a]
Cabin Crew	75 kg[a]

[a]An allowance for hand baggage is included. Any additional crew baggage must be taken into account.

Table 6.7. Guide weights for other items

Item	Weight
Guide Dog	35kg
Cello	10kg

easyJet generally uses standard weights for passengers and crew and actual weights for baggage. It is not permissible to use standard weights for baggage if this leads to a value less than known actual weights. Freight must always be weighed.

[EOM-A 8.1.8]

6.6.3. Balance calculation

Compliance with balance limitations is achieved using the EFB Weight and Balance modules with actual seating positions. A “free seating contingency” is available at EOMB 7.5 for exceptional circumstances precluding the use of allocated seating data.

[EOM-B 7.1.1]

6.6.4. Last minute changes

An LMC involving +10/-20 Passengers requires new paperwork and a new performance calculation.

A change in CG greater than 2% requires a new performance calculation.

An increase of payload of more than 250kg requires a new performance calculation. If payload increases by less than 250kg, a 1° reduction in FLEX suffices, provided that the new FLEX remains above TREF and the increase is less than the underload before LMC. A decrease in payload does not require any action as long as the change in CG is less than 2%.

[EOM-B 7.4]

6.7. Operational Flight Plans

Operational Flight Plans (OFP) are usually obtained via the crew room computers. OCC also have the ability to provide OFPs by email, fax or SITA if required. OFPs may be modified by OCC without crew notification until 30 minutes before crew report. The status of OFPs must be checked prior to acceptance; contact OCC if the OFP status is not annotated "Final".

[EOM-A 8.1.10]

6.8. Aircraft Technical Log

6.8.1. Standard of entries

All entries must be completed in block capitals.

Any signature must be accompanied by a printed surname, the date and any applicable authorisation or approval numbers.

If an entry is changed, the incorrect entry must have a single line drawn through it, the reason for the alteration entered next to the original text and a signature.

The Tech Log must be cross checked for errors after the final sector of a duty.

[EOM-A 8.1.11.2, EOM-A 8.1.11.3, EOM-A 8.1.11.5]

6.8.2. Layout and usage

The tech log is divided into prologue pages and a main section.

The prologue pages include the Certificate of Release to Service, records of Acceptable Deferred Defects (ADD), the Damage Register and "Briefing Notes to Crew". These must all be checked prior to accepting an aircraft.

Each page in the main section is divided into a defect section and four tear-off sector record strips. Unused strips on the current page should be struck out if any entry has been made in the defect section or when a crew change occurs without a direct handover.

The top half of each sector record strip is for recording details of a sector after it has been completed. The "Log Time" and "Landings brought forward" boxes are no longer used and should be struck through. The "Full Rated Thrust T/O" and autoland reporting are only relevant to the 737 fleet. If the record of the previous sector is found to be incorrect or incomplete the duty pilot must be contacted for authorisation to continue.

The bottom half of the strip is used to record pre-departure data and acceptance of the aircraft. The "Oil Check" and APU oil level boxes are not rel-

evant to flight crew and should be struck through. The ambient temperature fuel uplift should be recorded rather than the temperature corrected figure. To calculate approximate uplift in kg, multiply the uplift in litres by 0.8. If anti-icing has been carried out, the type of fluid, concentration and start and end times should be recorded. If anti-icing is carried out more than once it will be necessary to use multiple strips; each strip must have a copy of all the pre-departure data.

Each main section page has three coloured carbon copy sheets. The pink page is used to comply with regulations requiring retention of documentation at departure station. The pink strip with the commander's acceptance signature must always be left behind. The entire pink page should be left behind when there are no more usable strips, including when the strips have been struck out in accordance with the paragraph above. All other pages belong to engineering.

[EOM-A 8.1.11.5, EOM-A 8.1.11.6]

6.8.3. Defect management

All defects should, with the following exceptions, be immediately entered into the tech log:

- Recording of ECAM maintenance status messages may be deferred until the aircraft is next at a "main base". Consultation of the MEL is still required.

- Cabin defects must be immediately entered into the Cabin Defects Log. If the defect does not affect airworthiness (consult MOC if there is any doubt), then it does not need to be transferred to the tech log.

MOC must be contacted whenever a defect is entered in the tech log. Where possible MOC will arrange for engineering to rectify the defect or clear it to an ADD sheet in accordance with the MEL.

When no engineering support is available, MOC may request that flight crew either carry out certain limited engineering tasks in accordance with EOM-A 8.1.11.15 or clear a defect to the ADD pages. Deferral of defects by flight crew is only possible when the defect is assessed by MOC as having

no effect on airworthiness or when the relevant MEL entry has no maintenance actions specified.

To defer a defect the commander should make an entry in the "ACTION TAKEN" column with the MEL reference, repair interval and ADD number (AMOS number available from MOC). The commander signs for this in the "ACTION TAKEN" column; MOC will arrange for the Release to Service column to be signed off by a licenced engineer at the earliest opportunity. The relevant ADD entry should then be completed on the Aircraft Status Report sheet. The complete tech log defect description should be transferred, along with the tech log page reference and item number, any MEL/CDL reference number and limiting criteria (e.g. expiry date). The ADD entry should not be signed by the commander; it will be signed off by the engineer who signs the release to service.

Successful computer resets should be recorded by making a suitable entry in the defect section, e.g.

> CREW RESET: COM CIDS 1 + 2 FAULT ON THE GROUND, SUCCESSFUL RESET AS PER QRH

These entries do not count as open defects, so signatures should be placed below the entry and the associated "Action Taken" and RTS sections should be struck through.

Information that may be useful but which does not require immediate engineering action may, with MOC's agreement, be recorded as a "FOR INFO" entry in a similar way, e.g.

> FOR INFO: FMGC1 FAILED. RECOVERED WITH NO CREW INTERVENTION.

Signatures should be placed below the entry, and the phrase “reviewed and nil defect confirmed” should be entered in the “Action Taken” column to indicate that MOC are aware.

Bird strikes that do not result in damage may be recorded as "For Info" entries, providing the restrictions in EOM-A 8.1.11.19 are observed.

[EOM-A 8.1.11, EOM-B 2.3.25.2, EOM-B 3.3, EOM-A 8.1.11.19]

6.8.4. Recurrent engineering checks

The validity of recurrent engineering checks must be confirmed prior to accepting an aircraft. This is done for most checks by checking that the Certificate of Release to Service is valid. Completion of the daily check is recorded via an entry in the defect column; the earliest a daily inspection for a given calendar day may be certified is 18:00z on the previous day.

[EOM-A 8.1.11.4]

6.8.5. Cabin defect log

The SCCM enters details of cabin defects in the cabin defect log and presents it to the commander at the end of the flight. The commander must review the defects and transfer any airworthiness items to the technical log.

[EOM-A 8.1.11.17]

6.9. Documents to be carried

6.9.1. Certificates

- Certificate of Registration (original)
- Certificate of Airworthiness (original)
- Certificate of Airworthiness Review (original)
- Air Operator Certificate (electronic copy)
- Noise Certificate (electronic copy)
- Aircraft Radio Licence (electronic copy)
- Third Party Liability Insurance Certificate (electronic copy)
- Flight Crew Licences

6.9.2. Manuals and charts

All required manuals and charts are carried in electronic format on the EFB.

6.9.3. Flight Documentation

The following flight documentation must be carried in paper form:

- Operational Flight Plan (includes ATS Flight Plan, weather and NOTAMS)
- If ACARS is inoperative, a Journey Log
- Load form
- Technical Log
- Forms to comply with reporting procedures
- Notification of special loads (if applicable)
- Notification of special passengers (e.g. deportees)
- Any other documentation required by states concerned with the flight
- Crew passports

[EOM-A 8.1.12]

Chapter 7. Ground Handling Instructions

7.1. Fuelling procedures

The fuel supplier is responsible for ensuring that all fuel quality checks are completed, that the bowser is properly earthed to the aircraft and that fuel caps are properly secured.

Whilst fuelling, the strobe lights must not be operated. There may also be local restrictions regarding starting the APU. If fuel vapour is detected inside the cabin or any other hazard arises, fuelling must be suspended immediately. In the unlikely event that it becomes necessary to uplift wide cut fuel - there are extra safety restrictions detailed in EOM-A 8.2.1.1.

Refuelling may take place with passengers on board, but the following restrictions apply:

- A clear evacuation route from the aircraft must be available via airbridge or steps. The fuel card should not be displayed until this condition is met.
- Local restrictions must be checked.
- At least one pilot must be on the flight deck and must establish and maintain visual contact or two-way communication with the fueller.
- A full cabin crew compliment is required. There must be at least one cabin crew member at each set of floor level exits.
- Passengers must be informed that refuelling is taking place, instructed to have their seatbelts unfastened and told the toilets are out of use. Cabin crew should make a visual check that passenger seatbelts remain unfastened. The "No Smoking" sign should be on and the "Fasten Seatbelts" sign should be off.
- Door 1L must be open with steps or airbridge attached. Door 2L should ideally also be open with steps attached, but it may remain closed provided the slide is serviceable. The ground area beneath exits and slide deployment areas must remain clear and the positioning of fuelling equipment must not impede evacuation.

Defuelling is not permitted with passengers on board.

The fuel card may be used to expedite the fuelling process. Display of the fuel card authorises the commencement of fuelling; if any passengers remain on board it must be delayed until all relevant restrictions have been met. The fuel card must be stowed once fuelling is complete.

The flight crew must monitor the fuel gauges during fuelling.

[EOM-A 8.2.1]

7.2. Passenger groups

7.2.1. Able Bodied Passengers

Able bodied passengers (ABP) are those adult passengers that are deemed fit and strong and thus likely to assist evacuation. Designated seats near emergency exits are for the use of ABPs only.

[EOM-A 8.2.2.1]

7.2.2. Persons of Reduced Mobility

A passenger is considered a Person of Reduced Mobility (PRM) when their physical, medical or mental condition would make them likely to impede an evacuation. The number of PRMs on board must not exceed the number of ABPs. PRMs should be pre-boarded and seated where they will not obstruct emergency exits or impede crew carrying out emergency procedures.

Certain conditions entirely preclude carriage. A list is presented in EOM-A 8.2.2.2.

[EOM-A 8.2.2.1, EOM-A 8.2.2.2]

7.2.3. Infants and children

Infants (children under two years) may fly free of charge if they sit on the lap of the accompanying person. A maximum of two infants is allowed per accompanying person. The maximum total number of infants on laps is 10% of the number of seats on the aircraft. Infants under two weeks of age

are not permitted to fly. Premature babies are not permitted to fly until six months post expected date.

A child is defined as a person aged between 2 years and 13 years inclusive. Children must be accompanied by a person aged 16 years or older at a maximum ratio of 10:1.

In exceptional circumstances the carriage of an unaccompanied minor may be authorised by the ALO. Under no circumstances may an unconnected passenger be allowed to accept responsibility for an unaccompanied minor.

The following restraints are acceptable:

Table 7.1. Acceptable restraints for infants and children

Restraint	Age range
Infant extension seatbelt	2 weeks to 2 years
Suitable car-type safety seat[a]	No age restriction
Child restraint device (CARES)	Approx 1 to 4 years[b]
Normal seatbelt	2 years or more

[a] See CSPM 2.4.12.3 for guidance on suitability

[b] Specifically the child must be between 10kg and 20kg and capable of sitting upright unaided.

[EOM-A 8.2.2.4, CSPM 2.4.12]

7.2.4. Expectant mothers

Expectant mothers can be accepted for travel up to their 35th week for single pregnancies or 32nd week for multiple pregnancies. Medical certification is not required.

[EOM-A 8.2.2.4, CSPM 6.21]

7.2.5. Escorted passengers

Prisoners will only be accepted for carriage on the authority of the Network Duty Manager. Normally a maximum of one prisoner will be allowed per flight.

They must be accompanied by either police, prison officers or members of a recognised and appointed Civilian Security Firm. Convicted prisoners will normally be accompanied by two prison officers, others may have a single escort. Escorts will travel in plain clothes and will carry restraints, but not firearms.

Prisoners and escorts should board first and disembark last. They should be seated at the rear of the aircraft with the prisoner in the window seat. Prisoners may be handcuffed at the discretion of their escort, but only to themselves and their hands must be in front of them.

[EOM-A 8.2.2.6]

7.2.6. Deportees

When immigration authorities refuse a passenger admission, an Order to remove the passenger may be served on easyJet, possibly through the relevant commander. The commander retains the right to refuse the Order on safety grounds. UK immigration authorities have the power to require that an unacceptable passenger be detained on board.

The Commander must be informed on all occasions when a deportee is carried, and the deportee must be identified to the Commander and SCCM

The passport and other travel documentation of the deportee, including any "Form of Authority", should be retained in flight by the SCCM and passed to the handling agent on arrival. The deportee must not be permitted to disembark at any point within the deporting territory unless escorted by a dispatcher or passenger handling staff. The deportee may disembark at a destination other than that in their ticket provided immigration authorities are contacted prior to arrival.

If the deportee is escorted, seating should be as per escorted passengers. Otherwise it should be as per PRMs.

This section does not apply to the class of deportees referred to as "non-satisfied genuine visitors", who should be treated as normal passengers.

[EOM-A 8.2.2.7]

7.2.7. Stowaways

If a stowaway is discovered the police should be requested to meet the aircraft on arrival so that the stowaway may be detained. The company should be informed and an ASR filed.

[EOM-A 8.2.2.2]

7.2.8. Human remains

Only ashes are permitted. They must be be appropriately packaged, carried in hand baggage and accompanied by copies of the death and cremation certificates.

[EOM-A 8.2.2.5]

7.2.9. Live animals

The only permitted live animals are official Assistance and Guide Dogs. These may be carried on flights within and between Croatia, Switzerland and the EU nations. UK International flights are subject to the UK Pet Passport Scheme and dogs may therefore only be carried on flights originating from or arriving at LTN, STN, NCL, BRS and BFS.

Dogs must be accompanied by official documentation; the identity tag attached to the dog's official harness plus the owner's identity card will suffice. Larger dogs will be accommodated on the cabin floor; smaller dogs may be carried on the owner's lap. The owner must provide a suitable harness that attaches to their seatbelt and provides an effective level of restraint during take-off, landing and turbulence. It is acceptable for the dog to be subject to less restraint during cruise.

[CSPM 2.4.10]

7.3. Baggage and freight

7.3.1. Cabin baggage

Each passenger may bring one piece of hand baggage with maximum dimensions of 560mm x 450mm x 250mm. Cabin baggage may only be stowed in the overhead lockers or under the seats.

Underseat stowage should not be used in overwing exit rows, if the seat's restraint bar is insufficient to be effective given the size of the baggage or if the baggage would restrict egress from a seat row.

Placarded weight limitations on overhead stowages must be respected, and bulk should not prevent secure closing of the doors. Where there is emergency equipment stowed in the overhead lockers, it must not be impeded.

Carriage of personal medical oxygen bottles less than 500mm long and 250mm in diameter is permitted. Details of correct stowage may be found in CSPM 2.4.9.2.

[EOM-A 8.2.2.15, CSPM 2.4.9]

7.3.2. Musical instruments

Small musical instruments (max 300mmx1170mmx380mm) may be stowed in overhead lockers. One extra small piece of hand baggage is allowed to be carried in this case.

Large musical instruments may be carried providing the passenger has purchased a seat for the instrument. A maximum of two instruments may be carried. An instrument must weigh less than 75kg and have a centre of mass less than 30cm above the seat cushion. It must be secured to a non-restricted window seat.

[EOM-A 8.2.2.16]

7.3.3. Aircraft spares

OCC may authorise carriage of spares for AOG easyJet aircraft except on routes to and from Switzerland. Spares must not be classified as dangerous

goods. Individual items over 60kg require specific handling arrangements to be made. easyJet engineering are responsible for delivery, labelling, security screening and provision of a special load NOTOC. Engineering must oversee the offload of the spares on arrival.

[EOM-A 8.2.2.16]

7.3.4. FDM Data

FDM data cards/ disks may be carried in the flight deck. They are transported in blue padded zip sealed bags, and will already have been x-rayed before loading. They will be delivered and collected by engineering personnel.

If the zip seal is broken or missing, the bag may still be carried if it is thoroughly searched. The broken seal should be reported to the FDM department.

[EOM-A 8.2.2.16]

7.3.5. Human Organs for Transplantation

These will arrive at the aircraft in a box sealed with tamper-proof tags. They are exempt security screening, but the police will have verified the origin of the consignment before accepting the delivery. The box should be carried in the flight deck under the Captain's supervision.

[CSPM 2.4.11]

7.4. Ground ice protection

7.4.1. Types of fluid

ISO Type I fluid has a high glycol content and low viscosity. De-icing performance is good, but protection from freezing precipitation is poor. It is best used for removing frozen deposits as part of a two stage process or when precipitation has stopped. Type I fluids are usually clear or light orange.

ISO Type II fluid includes a pseudo plastic thickening agent. This allows it to remain on the surface after application to provide protection from freez-

ing precipitation. Shearing of the fluid allows it to flow off the critical surfaces as airspeed increases. Type II fluids are usually straw coloured.

ISO Type IV fluid is similar in operation to Type II fluid, but uses more advanced thickening systems to give longer holdover times. Type IV fluids are usually green.

Heated water may be used as the first step of a two step process. All fluids may be diluted with water. Required Type I fluid concentration is a function of OAT only, as dilution has a negligible effect on holdover. Required Type II and Type IV concentrations are a factor of OAT and holdover requirements.

[EOM-A 8.2.4.3.2]

7.4.2. Holdover times

Guideline holdover time tables are presented on the EFB in the Winter Ops section. Definitions of precipitation type for use in the tables are presented at EOM-A 8.2.4.2. For a two step process, the holdover time begins at the commencement of the second step. The lower time limit indicates holdover time for "moderate" precipitation, the higher for "light" precipitation. Holdover times will be shortened by high winds, jet blast or when the skin temperature is less than OAT.

[EOM-A 8.2.4.3.3, EOM-A 8.2.4.3.4]

7.4.3. Precautions

De-icing fluid should not be used where it could cause loss of vision while being shed during the take-off roll.

A walk-round inspection should be completed by a qualified person after de-icing is completed. Flying and control surfaces should be clear of deposits, intake and drain holes should be clear of obstructions and a check should be made that de-icing fluid that has been diluted by the removed deposits has not refrozen on other parts of the aircraft. Undercarriage components should be checked for cleanliness and microswitches and uplocks should be checked for normal operation. If possible, compressors should be rotated by hand to ensure they have not frozen.

The flight crew should also move the control surfaces over their full range to ensure that they are free of obstruction.

[EOM-A 8.2.4.3.4]

7.5. Punctuality policy

easyJet policy is to be be ready with doors closed at STD-3. To support this crew should aim to be at the aircraft at STD-35 and on the first wave be ready for green light boarding at STD-25. Ground staff will assume that the crew will be ready for green light boarding unless otherwise advised.

The aircraft may depart no earlier than STD-10 unless otherwise agreed with OCC.

In the event of ATC slot delays board passengers in the hope of improvements following transmission of a ready message. Where CTOT improvements would be disadvantageous OCC should be contacted to put a CTOT block on the flight.

Remote holding should be used to release stands and manipulate OTP figures. Crew should liaise with ground agents to determine whether it would be advantageous from a ground handling perspective to push at STD, and if not should push back no later than STD+14. Note that ground crew are not required for engine start after remote holding. Slot delays of up to 30 minutes should be absorbed taxiing or at the holding point when feasible.

No attempt should be made to recover the schedule by flying faster than planned on the OFP.

Whenever possible, delay codes should be agreed with the dispatcher.

[EOM-A 8.9]

Chapter 8. Flight procedures

8.1. VFR/IFR policy

When controlled airspace exists between departure and destination airports, flights will be planned to remain within that airspace. Where controlled airspace does not exist, advisory airspace will be used if available.

Where a flight is planned to remain within controlled or advisory airspace, flight outside that airspace should only be considered for safety reasons.{TODO: EOM-A then goes on to contradict itself, saying that you can fly outside controlled airspace after all e.g. if you are VMC in sight of airfield or flying in airspace known to be clear of other traffic}. The maximum level of radar service should be sought whenever outside controlled airspace. Flight in uncontrolled airspace without radar cover requires authorisation from the duty pilot.

VFR flight should be considered exceptional and must be authorised by the post holder flight operations. It must be conducted in accordance with the normal VFR minimum visibility and distance for cloud regulations, set out in EOMA 8.1.4/

[EOM-A 8.3.1, EOM-A 8.1.1.1]

8.2. Altimeter setting procedures

On the ground, the main altimeters should be within 20ft of each other and within 25ft of the airfield elevation. The ISIS should be within 100ft of the main altimeters.

easyJet is a QNH operator. Main altimeters should be set to 1013 when cleared to a flight level during climbout and set to QNH when cleared to an altitude during descent. The standby altimeter should remain on QNH until passing MSA during climbout and should be set to QNH before passing FL200 in the descent.

[EOM-A 8.3.4, FCOM PRO.SUP.34]

8.3. RVSM

RVSM airspace is airspace above FL290 where only 1000ft vertical separation is maintained. All easyJet aircraft are RVSM approved.

On entry to RVSM airspace the following equipment must be installed and serviceable: 2 primary altimeters, one automatic altitude control system, one altitude alerting system and one SSR transponder with altitude reporting. The primary altimeters must agree within 200ft. The altimeter being used to control the aircraft should normally be selected as the input to the transponder. If equipment failure leads to loss of RVSM capability, inform ATC immediately.

ATC must also be notified if severe turbulence is encountered.

[EOM-A 8.3.3.13]

8.4. In-flight fuel management

All flights require a written fuel check at the top of climb, then further written checks at intervals of 1 hour or less.

Company Normal Reserves (CNR) is defined as ALTN + FINRES (see Section 6.5, “Pre-flight fuel planning”). The OFP provides a Minimum Fuel Required (MFR) value for each planned waypoint. MFR is CNR plus the planned remaining fuel burn to destination. The fuel check should record Actual Fuel On Board (FOB) at a planned waypoint and compare this with MFR. The difference should be CONT + EXTRA + ~40kg per minute that you are early passing the waypoint due to shortcuts. If the FOB is less than this without reasonable explanation then the possibility of a fuel leak should be considered.

If it is determined that fuel on landing at destination will be below CNR, action must be taken to reduce fuel burn. Options include flying at CI=0, changing levels or requesting shortcuts. If fuel burn cannot be reduced sufficiently to land with more than CNR, a decision must be made whether to divert or continue to destination. A decision to continue to destination is a committal to land there, and is permissible if landing is assured and the maximum anticipated delay is known. A landing is considered assured

if no forecast weather deterioration or single failure of ground or airborne equipment can prevent landing. In general this means that Cat I minimas must be available at Cat III equipped aerodromes and non-precision minimas must be available at Cat I equipped aerodromes.

If it is determined that any change in current clearance would result in a landing with less than final reserve fuel, declare "Minimum fuel" to ATC. This is not an emergency call, just a heads up. If it is determined that the fuel on landing *will* be less than final reserve, a MAYDAY call should be made.

[EOM-A 8.3.8]

8.5. Hazardous atmospheric conditions

8.5.1. Thunderstorms

Do not attempt to land or take-off when a thunderstorm is overhead or approaching.

Avoid thunderstorms by 20nm when above 20,000ft. Below 20,000ft avoid by 10nm:

- any echoes with 'hooks', 'fingers', scalloped edges or other protrusions
- any echoes with sharp edges, strong intensities or strong gradients of intensity
- any echoes showing rapid change of intensity, shape or height

If overflying maintain at least 5000ft vertical clearance.

In general it is preferable to be upwind of a thunderstorm; severe turbulence and hail are most often encountered on the downwind side. In particular avoid flying underneath the anvil or in the cirrus or cirrostratus layers downwind of the storm. The greatest probability of severe turbulence and lightning strikes is near the 0°C isotherm, so avoid this level.

If an area of thunderstorm activity cannot be avoided, set the aircraft up for turbulence (autopilot on, autothrust disconnected when thrust changes become excessive, thrust as per QRH 5.01), heavy icing (anti-ice systems all

on) and heavy precipitation (ignitors on). Turn up the cockpit lighting fully and lower the crew seats to prevent blindness from lightning flashes. Disregard the ADF. Penetrate lines of thunderstorms at 90° using the weather radar to identify the path of least activity. Once inside a thunderstorm maintain heading as this is likely to be the shortest path through it. If manual flight is required maintain attitude and expect large variations in altitude.

[EOM-A 8.3.9, UK AIC P056/2010, FCOM PRO.SUP.91.10]

8.5.2. Turbulence

The cabin crew should be informed of any forecast turbulence during the pre-flight brief.

When reporting turbulence to ATC, the term "severe turbulence" indicates that the aircraft is momentarily out of control and the term "extreme turbulence" indicates that the aircraft is practically impossible to control and likely to be suffering structural damage.

[EOM-A 8.3.9.3]

8.6. All Weather Operations

8.6.1. Determination of minima

Determination of aerodrome minima is discussed in Section 6.3, “Aerodrome Operating Minima”

8.6.2. Approach Ban

An approach must not be continued below **1000ft** AAL unless the RVR or Met Visibility is sufficient to comply with aerodrome minima. Once below 1000ft AAL the approach may be continued even if conditions worsen.

[EOM-A 8.4.3]

8.6.3. Required visual reference

An approach should not continue below relevant DH/DA/eDA unless the required visual reference is attained.

No visual reference is required for Cat IIIB operations with no DH. At least one centre line light must be attained for Cat IIIB operations with DH.

Cat IIIA operations require 3 consecutive lights. These can be the centre-line lights of the approach lighting, the TDZ lights, the runway centre line lights or the runway edge lights. Cat II operations require the same reference as Cat IIIA plus a lateral element of the ground pattern (e.g. an approach lighting crossbar). Cat I LTS operations require the same reference as Cat II.

easyJet policy is to use autoland systems for all Cat I LTS, Cat II and Cat III approaches.

For non-precision approaches the threshold, touch down zone, PAPIs or suitable parts of the approach or runway lighting system must be distinctly visible and identifiable.

[EOM-A 8.4.4, EOM-A 8.4.5, EOM-A 8.4.9]

8.6.4. Consecutive missed approaches

A third consecutive approach to the same airfield should only be considered if neither missed approach was due to weather or when there has been a significant improvement in weather conditions. Exceptionally, if only one of the missed approaches was due to weather and landing is considered assured a third approach may be flown.

[EOM-A 8.4.2]

8.7. Miscellaneous flight procedures

8.7.1. Controlled rest

Controlled rest is defined as a period "off task", that may include sleep. It may be used at the commander's discretion to manage unexpected fatigue; if it is felt likely before flight that controlled rest will be required, the flight should not depart.

The period of controlled rest should be no longer than 45 minutes in order to avoid periods of deep sleep with their associated long recovery times;

multiple controlled rest periods within a single sector are acceptable. A crew member should not be left in sole control of the aircraft for a period of 20 minutes after the completion of a period of controlled rest. Controlled rest periods should terminate at least 30 minutes before top of descent.

The resting crew member should wear their full harness and adjust their seat to minimise the chances of interfering with controls.

The cabin crew should be appraised of any controlled rest periods being taken so that they can increase their monitoring of the alertness of the remaining flight crew member. Appropriate alarm devices may also be useful as a line of last defence.

[EOM-A 8.3.11.1]

8.7.2. Flight deck door

Except for essential entry and egress of crew, the flight deck door should remain locked whenever the engines are running. The door should be unlocked for the minimum time possible, and whenever it is unlocked it should be guarded by a cabin crew member standing outside the flight deck and facing the cabin. The flight crew should monitor compliance via CCTV or spy-hole before unlocking the door. If a pilot needs to leave the flight deck a member of cabin crew must remain in the flight deck.

[EOM-A 8.3.11.1, EOM-A 8.3.12]

8.7.3. Crew seating and harnesses

Both pilots must wear full harnesses whenever the "fasten belts" sign is on. Seats should only be moved from their normal flying position when in level cruise. If a pilot leaves his seat, the other pilot should wear his full harness and have his seat in the normal flying position.

An encyclopedic list of people authorised to use the flight deck jump seat may be found at EOM-A 8.3.13. Some of these will only be entitled to use the jump seat if they carry a valid cockpit permit.

[EOM-A 8.3.12.1, EOM-A 8.3.13]

8.7.4. Incapacitation of crew members

It may be assumed that a crew member is incapacitated if he does not respond appropriately to two verbal communications or does not respond to a verbal communication associated with a significant deviation from a standard flight profile.

If the incapacitation occurs when the aircraft is on approach, fully configured, and visual with the runway, the landing should be completed. Otherwise, other crew should be summoned to care for the incapacitated crew member, an emergency should be declared and a diversion should be made to the nearest suitable airport. The incapacitated crew member must take no further part in the flight, even if he appears to have fully recovered. Medical advice should be sought by the remaining crew before further flying.

[EOM-A 8.3.15]

8.7.5. Passenger electronic equipment

Passengers may use mobile phones on the aircraft whenever the doors are open, including when fuelling. Passengers may also use mobile phones at the commander's discretion during extended delays on the ground, including when remote holding with running engines. Use of non-transmitting PEDs or transmitting PEDs in “flight mode” is permitted in all phases of flight except during LVOs. There is no requirement for passengers to remove headphones at any time.

[EOM-A 8.3.23]

8.7.6. Skills retention

Where conditions are suitable it is permissible and encouraged that crew regularly practice flying with deliberately reduced levels of automation. It is also permissible to make an approach utilising reduced levels of approach guidance (e.g. an NDB approach when an ILS is available). A thorough briefing of intentions is required in both cases. The maximum bank angle permitted with flight directors off is 25°.

It is permissible to practice LVO approaches, but these should generally be restricted to times when ATC is able to protect the ILS sensitive areas. It is

acceptable to set up the systems using LVO minima, but the Cat I minimas will be the legal minimas (LVPs will not be in force) and appropriate calls should be made against these minimas by PNF.

It is not permitted to practice abnormal and emergency procedures by intentionally disabling systems.

[EOM-A 8.3.19, EOM-A 8.3.20]

8.7.7. Communications policy

VHF1 will be used for the active ATC frequency and must be monitored by both pilots at all times. VHF2 may be set to 121.5 when it is not operationally necessary to use it for other purposes. Whenever set to 121.5 both pilots should monitor VHF2.

Headsets must be used on the ground whenever engines are running or when copying an ATC clearance. Headsets may be removed in level cruise, but must be worn in all other phases. Headsets should be worn covering both ears except when engaged in three way communication with ground crew when use of the intercom may lead to confusion.

Calls to handling agents or OCC should only be made in level flight and should be completed at least 15 nm prior to top of descent.

[EOM-A 8.3.21]

Chapter 9. Miscellaneous

9.1. Uniform policy

The pilot uniform standard is described in the "All Pilot Uniform Standards" document. Ties must be worn whenever outside the flight deck. Uniform jackets may be removed at the discretion of the commander. Flight crew may operate out of uniform at the discretion of the duty pilot.

[EOM-A 1.4.2]

Chapter 10. Oceanic operations

10.1. Authorised routes

In general, two HF radios and two LRNSs (LRNS=FMGC for A320 family) are required for oceanic operations. easyJet's A319s have no HF radios, and the A320s have only one. This limits oceanic operations to the “special routes” where less than the normal minimum communication and navigation equipment are required, which include T9 and the Blue Spruce Routes between Scotland, Iceland, Greenland and Labrador.

10.2. Additional procedures

10.2.1. FMGC programming

Extra care must be taken to ensure the coordinates of all waypoints are accurately entered in the FMGC. The second pilot should independently verify these coordinates, marking the waypoint on the OFP with a circled “O” to indicate that this has been done.

Track and distance between waypoints should also be checked against the OFP. Tick these items on the OFP to indicate that they have been checked.

10.2.2. HF/SELCAL

Do not operate the HF when refuelling or when in a hangar.

If HF is required, a SELCAL check should be carried out before entering oceanic airspace. This may be done on the ground through Stockholm radio.

10.2.3. Oceanic clearance

For T9, contact Shanwick Oceanic on 127.65 for oceanic clearance 40 minutes before Shanwick OCA boundary. If unable to contact Shanwick on VHF use NAT C HF frequencies from the Atlantic Orientation Chart or relay through domestic ATC.

For Blue Spruce Routes, contact Iceland Radio (127.85/126.55) 20 minutes before entering Reykjavic OCA; authorisation to enter Reyjavik OCA can also be sought from Scottish ATC if necessary.

Do not enter Shanwick OCA without clearance. Other OCAs may be entered whilst awaiting a delayed clearance.

The clearance request should include:

1. Callsign
2. Frequency being used (HF only)
3. OCA entry point and ETA[1]
4. Requested Mach number
5. Requested level
6. Next acceptable higher level

Coordinate with domestic ATC to be at the correct level and speed at the OCA entry point.

Reclearance will be required if it becomes apparent that the ETA to the OCA entry point is incorrect by more than 3 minutes.

10.2.4. Inside OCA

Communications

30 minutes after entry, squawk 2000 unless otherwise advised. This does not apply to Reykjavic OCA. In the Shanwick Oceanic Transition Area (SOTA), squawks will be given by Shannon ACC.

123.45 and 121.5 should be monitored on VHF radios. HF does not need to be monitored if SELCAL is available.

[1] ETA should be expressed in hours and minutes.

Position reports

Position reports should be made overhead waypoints and/or at significant points listed in the flight plan. The format of a position report is:

1. Callsign
2. Frequency being used
3. Waypoint and time
4. Flight level
5. Next waypoint and ETA[1]
6. Subsequent waypoint

ATC must be notified if it becomes apparent that any passed ETA will be incorrect by more than 3 minutes.

For waypoints expressed as lat/long pairs, longitude minutes may be omitted for predominantly east-west flights and latitude minutes may be omitted for predominantly north-south flights.

Copy in ACC for adjacent OCAs when operating within 60nm of a common boundary (e.g. “SANTA MARIA copy SHANWICK, …”).

Navigation monitoring

Overhead each waypoint, confirm the coordinates of the next waypoint (mark it with a “\” to indicate this check has been done) and compare the track and distance to the next waypoint with the OFP and the navigation chart. Mark the overflown waypoint with an “X”.

Midway between waypoints, compare the actual winds to those on the OFP and in the weather brief.

Strategic Lateral Offset Procedure (SLOP)

When operating outside radar controlled airspace there are three positions, at pilot's discretion, that it is permissable to fly: centerline, 1nm right of

centerline and 2nm right of centerline. No ATC clearance or notification is required.

Overtaking aircraft should select an offset that will cause the least wake turbulence for the overtaken aircraft.

The offset must be removed before the OCA exit point.

Level and Speed changes

Since longitudinal separation may be predicated purely on postion reports and Mach number, reclearance must be requested for any changes to either Mach number or level once inside the OCA.

10.3. Contingency procedures

10.3.1. Weather avoidance

Notify ATC and request clearance to deviate from track.

If ATC are not able to establish appropriate separation, they will advise the pilot of the conflicting traffic; responsibility for separation then rests with the pilot. In this case:

- Alert nearby aircraft of intentions on the frequency in use, 123.45 or 121.5.
- Turn on all available lights.
- Deviate away from the organized track system if possible. If the deviation is greater than 10nm, change level according to the following table:

Route centre line track	Direction	Change
000° to 179°	Left	Descend 300ft
	Right	Climb 300ft
180° to 359°	Left	Climb 300ft
	Right	Descend 300ft

Return to assigned flight level within 10nm of track when rejoining.

10.3.2. En-route diversion

Whenever possible, obtain a revised clearance before initiating any action.

If this is not possible, leave the assigned track by turning at least 45° to establish on a 15nm parallel offset track. Once 10nm from the centerline, descend 500ft. Once established on the offset track, descend to a level below FL285 that differs from those normally used by 500ft. A diversion across the flow of traffic can then be commenced. If unable to descend below FL285, any level that differs by 500ft may be used. Keep nearby aircraft informed of position and intentions on 121.5 or 123.45.

If unable to initially maintain assigned flight level, minimise rate of descent when leaving original track then expedite to a feasible flight level which differs by 500ft from those normally used.

10.3.3. FMGC failure

Flight into MNPS airspace is permissable with a single FMGC failure. With the exception of a few notified routes, MNPS airspace should not be entered with dual FMGC failure.

If both FMGCs fail whilst inside MNPS airspace, ATC should be notified and a revised clearance sought. If this is not possible, navigate by plotting IR lat/long data on a suitable chart as described in EOM-C.

10.3.4. Comms failure

If failure occurs in domestic airspace prior to OCA entry, domestic diversion is recommended. It is, however, permissable to continue into the OCA in accordance with the last received and acknowledged oceanic clearance, or, if such a clearance has not been received, in accordance with the filed flight plan.

In the event of comms failure inside the OCA, continue in accordance with the last received and acknowledged oceanic clearance to the last specified

oceanic route point and then revert to the flight plan and normal lost comms procedures.

Chapter 11. Winter Operations

11.1. Aircraft contamination on the ground

11.1.1. Allowable contamination

The effect of frozen contamination on aircraft take-off performance is unpredictable. Allowable contamination is therefore limited by Airbus to the following cases:

1. Thin hoar frost on upper fuselage, radome and nacelles

2. ≤3mm of frost on underside of wing tank area

[FCOM PRO.SUP.91.30]

11.1.2. Removal of contamination

Airframe

Airframe contamination is primarily removed using de-icing fluid.[1] The main exception is the areas forward of the cockpit windows which should be de-iced mechanically.[2] Note also that Airbus recommends removing contamination from the windshield and upper cockpit fuselage before turning on the window heat so as to avoid contamination of critical areas by refrozen run off.

The airframe de-icing procedure is available in the supplementary information section of the QRH. This procedure prevents the ingress of de-icing fluid through the use of the ditching button. As this closes the outflow valve, all air sources, including ground air sources, must be turned off or disconnected during de-icing. It is permissible to de-ice the aircraft with the engines and/or APU running. With the engines running it is particularly im-

[1] "Forced air" de-icing has recently been introduced at certain stations. This may be used in addition to or instead of de-icing fluid under certain circumstances.

[2] De-icing fluid remaining on these areas will run back over the windows and obscure vision during the take-off roll.

portant to maintain communications with the ground personnel so that they can be co-ordinated should an evacuation become necessary. If the APU is running and the fuselage has been sprayed, the APU bleed should remain off for approximately 5 minutes after de-icing to prevent the ingestion of de-icing fluid into the air conditioning system.

Once contamination has been removed, the airframe must remain uncontaminated until airborne. If conditions are such that re-contamination may occur, viscous anti-icing fluids that remain attached to the aircraft are used to provide protection until they are sheared off by high speed airflow during the take-off roll.

Anti-icing fluids have the potential to fail, either by freezing or losing their viscosity and flowing off the aircraft. A fluid's freezing point and viscosity is determined by its chemical makeup and its dilution, dilution being a function of initial dilution[3] and the amount of water absorbed in the process of protecting the aircraft. “Hold over time” tables are provided to allow estimation of the amount of time available before fluid failure occurs for a given combination of fluid type, temperature, intial dilution and precipitation type. The time is given as a range, the shorter time corresponding to “medium“ precipitation and the longer time corresponding to “light” precipitation. It is possible that the wing may be colder than its surroundings due to cold soaked fuel contained within. Therefore if the fuel temperature is below the ambient temperature, the fuel temperature should be used in hold over time calculations.

As anti-ice fluids are designed to shear off the aircraft as airspeed increases they are also susceptible to failure due to high winds and jet blast.

De-icing may be combined with anti-icing or carried out as distinct steps. In a two step process, hold over time begins at the commencement of the anti-icing step.

When taxiing over contaminated areas there is a risk that slush will contaminate the flap mechanisms. For this reason the flaps are kept retracted under these circumstances and will usually also be retracted during de-icing.

[3]Fluids may be applied pre-diluted with water to save expense.

Extending the flaps will therefore expose unprotected areas to precipitation and should therefore be left until just before takeoff in these conditions.

[FCOM PRO.SUP.91.30, EOMA 8.2.4]

Engines

The engines must not be started until all contamination has been removed. Removal of this contamination is an engineering function, usually involving the use of hot air blowers.

When operating for extended periods in icing conditions it is possible that the fan blades will become contaminated by ice. Airbus provides a fan blade ice shedding procedure which should be applied when ground operations in icing conditions have exceeded 30 minutes. The procedure is to accelerate the engines to 70% N1 for 30 seconds every 30 minutes and additionally just before take-off. If operating in freezing fog, freezing rain or heavy snow an additional run up to 70% with no dwell time should be carried out every 10 minutes.

[EOMB 2.4.91]

11.2. Contaminated runway operations

Runway contamination affects aircraft operations in three ways:

1. Reduced lateral tyre friction reduces lateral control, thus lighter cross-winds become limiting.

2. Reduced longitudinal tyre friction reduces the aircraft's ability to stop, affecting both accelerate stop and landing distances.

3. Contaminant drag caused by displacement and impingement reduces the aircraft's ability to accelerate, affecting all aspects of take-off performance.

Each contaminant type results in a different mix of these factors.

Where less than 25% of the runway is contaminated and/or the contaminant is water, slush or snow with a depth of 3mm or less the effects are negligi-

ble enough to simply consider the runway wet. This may, however, not be appropriate if contamination is localised to critical areas of the runway.

Where the contamination exceeds 12.7mm of water or slush, 25.4mm of wet snow or 100mm of dry snow, take-off is prohibited. Both takeoff and landing are prohibited if there is a layer of contaminant on top of a layer of ice or compacted snow since no performance data is available for combinations of contaminants. In addition EOMB 2.1 prohibits takeoff on wet ice.

Between these extremes, take-off and landing are permitted so long as the effects of the contamination are mitigated:

- Item 1 is dealt with by introducing more restrictive crosswind limitations, these being promulgated in EOMB 2.1 and QRH PER.C

- Items 2 and 3 are dealt with through the use of more restrictive performance data. This data is available via the EFB's runway condition field. The EFB runway condition field does not have an option for snow, so a table is presented in EOMB 4.6.8 for takeoff and QRH PER.C for landing to transform snow contamination into equivalent slush or water contamination.

In addition, snow clearing operations may have resulted in the build up of snow banks in the proximity of the runway. A diagram in EOMB 4.6.10 defines the maximum snow bank height against distance from the runway that is permitted for take-off.

The captain must be PF for all contaminated runway operations, and all contaminated take-offs should use TOGA thrust.

[EOMB 4.6, EOMB 4.13, EOMB 2.1, QRH PER.C]