



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990


I, MAURICE WILLIAMSON, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *4* day of *September* 1995

by **MAURICE WILLIAMSON**


Minister of Transport

Civil Aviation Rules

Part 123, Amendment No. 1

**Air Transport Operations – Rotorcraft and Small
Aeroplanes**

Subpart K, Fatigue of Flight Crew

Docket Nr. 1123

Civil Aviation Rules
Part 123, Amendment No. 1

**Air Transport Operations – Rotorcraft and Small
Aeroplanes**
Subpart K, Fatigue of Flight Crew

A period of thirty days was allowed for comment on the proposed amendment to the rules. Two written submissions were received from industry in response to this notice. These submissions were considered, however no changes were found to be necessary. The amendment was then referred to and signed by the Minister of Transport.

Part 123, Amendment No. 1 comes into force on 14 November 1995.

Part 123 Amendments

Title

The title of Part 123 is amended by revoking the expression "Part 123" and substituting the expression "Part 135".

List of Rules

The List of Rules is amended by omitting the items relating to Part 123 and by substituting the following new List of Rules for Part 135:

"List of Rules

Subpart A – General

135.1 Applicability

Subpart B – J *[Reserved]*

Subpart K – Fatigue of Flight Crew

135.801 Applicability

135.803 Operator Responsibilities

135.805 Flight Crew Responsibilities"

New Subparts A – J

Part 123 is amended by inserting before Subpart K the following:

"Subpart A – General

135.1 *Applicability*

This Part prescribes rules governing the operation of—

- (1) aeroplanes having a passenger seating capacity of 30 seats or less (excluding any required crew member seat), or a payload of 3410 kg or less, performing air transport operations; and
- (2) rotorcraft performing air transport operations.

Subparts B – J *[Reserved]*"

Subpart K – Fatigue of Flight Crew

123.901 is renumbered 135.801. 123.901 is further amended by revoking the word “helicopters” and substituting the word “aircraft”.

123.903 is renumbered 135.803.

123.903(a) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”, and by revoking the words “that helicopter” and substituting the words “that aircraft” in each case where those words occur. 123.903(a) is further amended by revoking the words “be used on” and substituting the word “perform”. Subparagraph (1) is amended by omitting the words “flight times” and substituting the words “flight and duty times”. Subparagraph (2)(xxi) is amended by substituting the words “record-keeping; and” for the words “record-keeping.”. The following new subparagraph (3) is added:

“(3) the operator complies with the applicable requirements in Appendix 1.”

123.903(b) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”, and by revoking the words “the helicopter” and substituting the words “the aircraft” in each case where those words occur. 123.903(b) is further amended by revoking the words “engaged on” and substituting the word “performing”.

123.903(c) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”, and by revoking the words “the helicopter” and substituting the words “the aircraft”. 123.903(c) is further amended by revoking the words “engaged in” and substituting the word “performing”.

123.905 is renumbered 135.805.

123.905(a) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”, and by revoking the words “the helicopter” and substituting the words “the aircraft”. 123.905(a) is further amended by revoking the words “engaged on” and substituting the word “performing”.

123.905(b) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”. 123.905(b) is further amended by revoking the words “engaged on” and substituting the word “performing” and by revoking the reference “123.903” and substituting the reference “135.803”.

123.905(c) is amended by revoking the words “a helicopter” and substituting the words “an aircraft”. 123.905(c) is further amended by revoking the words “engaged on” and substituting the word “performing”.

APPENDICES

Part 123 is amended by inserting after Subpart K the following Appendices:

“Appendix 1 – Transitional Rules

- (a) Each holder of an air service certificate issued under regulation 136 of the Civil Aviation Regulations 1953 shall comply with one of the following:
- (1) the Flight and Duty Time scheme specified in Appendix 2, including any variations to Civil Aviation Safety Order 3 that have been approved by the Director for the holder at the time this rule comes into force;
 - (2) a Flight and Duty Time scheme, other than the scheme specified in Appendix 2, that has been approved by the Director.
- (b) If the certificate holder elects to comply with paragraph (a)(2), the holder shall submit to the Director for approval—
- (1) a scheme required by 135.803; and
 - (2) a statement signed by the Chief Executive of the certificate holder’s organisation confirming that the scheme submitted—
 - (i) is the organisation’s means for regulating flight and duty times; and
 - (ii) will be complied with at all times; and
 - (3) details of internal quality assurance procedures for ensuring compliance with the scheme including details of—
 - (i) the level of quality that the applicant intends to achieve; and
 - (ii) the level and frequency of internal reviews; and
 - (iii) the person or persons responsible for carrying out the internal reviews; and
 - (iv) how the findings of the internal reviews are to be recorded and reported to the Chief Executive; and
 - (v) how quality indicators such as error reports, incidents, and complaints are incorporated into the internal quality assurance procedures; and
 - (vi) the means for rectifying any deficiencies found during an internal review; and

- (vii) the documentation requirements for all aspects of the review.”

[Appendix 1 will be revoked on the date Part 119, Air Transport Operator Certification comes into force]

“Appendix 2 – Flight and Duty Time Scheme

SECTION 1 – DEFINITIONS

In this appendix:

Adequate rest facilities means rest facilities considered by the Director to be sufficiently segregated and comfortable so as to provide suitable rest for resting flight crew members, having regard to the service concerned.

Disrupted schedule means a schedule which by reason of circumstance outside the control of the operator is prevented from being completed within its scheduled time.

Duty period means any continuous period throughout which a flight crew member is required by an operator to be on duty or available for duty, whether on the ground or in the air.

Where a flight crew member is required by an operator to be on duty or available for duty for two or more periods separated by an interval of less than 10 hours, the periods shall be deemed continuous, starting when the first of the periods begins and finishing when the last period ends.

External operation means an operation, excluding an operation to the Chatham Islands, the greater part of which is carried out outside the territorial waters of New Zealand.

Internal operation means an operation which is carried out between places within New Zealand, and includes an operation between the islands of New Zealand.

Rest period means any period of time on the ground during which a flight crew member is relieved of all duties by the operator.

Standby period means the period of time during which a flight crew member is required to hold himself available for active duty.

Stay in an area means a stopover in an area for a period which includes facility for two normal night's rest; that is, two consecutive periods between midnight and 6 am local time.

Tour of duty means the period of time commencing at the start of duties at home base prior to a series of flights and ending at home base on completion of the duties associated with series of flights.

When a flight crew member is based temporarily at a place other than his home base, that place, for the period of the detachment, will be regarded as his home base.

Total hours of duty means the sum of the duty periods within any particular period that a flight crew member is at the disposal of an operator.

SECTION 2 – GENERAL

2.1 – 2.4 Reserved

2.5 When, during a particular duty period, a flight crew member is engaged in air transport operations which have differing flight time limitations, the most restrictive flight time will apply.

2.6 A flight crew member shall not carry out other flying while employed by an air transport operator when such flying, in addition to that in air transport operations, will exceed the appropriate flight time limitations specified herein.

2.7 When, in connection with any business of operating an aircraft, a flight crew member flies in any aircraft otherwise than as a member of that aircraft's operating crew, he or she shall be treated as being on duty whether he or she flies as an extra member of its crew or as a passenger.

2.8 When a flight crew member is required to carry out standby at an aerodrome or at a place where adequate facilities for rest are not available the time from the beginning of the standby period until he or she is required to fly or is released from duty shall be regarded as a part of a duty period.

When standby is carried out at home or at a place away from home where adequate rest facilities are available, the standby period shall not be regarded as part of any duty period or any rest period.

Standby at home or at a place away from home where adequate rest facilities are available shall not exceed one continuous period of 16 hours. When followed by a period of active duty, the total elapsed time from the beginning of standby to the end of that duty period shall not exceed 23 hours.

A standby period shall only be considered a separate period when the intervening rest period between the standby period and a period of active duty or a further period of standby is not less than 10 hours.

2.9 When a flight crew member is transported by company surface transport:

2.9.1 Before the beginning of a duty period, time involved in transporting the flight crew member to the normal place of work for that base shall not be regarded as part of any duty period or any rest period.

2.9.2 At the beginning of a duty period, time involved in transporting the flight crew member to a place of work other than the normal for that base shall be considered duty time for the purpose of these limitations.

2.9.3 At the completion of a duty period, time involved in transporting a flight crew member to his company City office or place of rest, whichever is applicable, shall not be regarded as part of any duty period or of any rest period.

2.10 Any duty period shall be followed by a rest period of not less than 10 hours except where it is otherwise stated in this document.

When at the end of a duty period, a rest period is given at any place other than home base, facilities shall be available for horizontal rest in an environment conducive to rest.

When, to preserve the sleep/wake cycle or for other reasons, it is necessary for a flight crew member to sleep at times other than between the hours of midnight and 6 am local time, the rest facility must be capable of giving the same opportunity for sleep as it would be expected to give between the hours of midnight and 6 am local time.

When, due to diversion or disruption, the rest facility is not to the required standard, the applicable rest period may be reduced at the discretion of the pilot-in-command to not less than 10 consecutive hours in order that the flight may be continued to the planned place of rest. When advantage is taken of this dispensation, the balance of the required rest period must be added to the applicable rest period at the planned place of rest.

When rest facilities are required to be provided on an aircraft properly segregated first or business class or equivalent seats must be provided for resting flight crew members.

When the planned duty period is in excess of 14 hours, the Director, having regard to:

- (a) the length of the immediately preceding duty and rest periods:
- (b) the time of day of the flight:
- (c) the ground accommodation at the last place of rest:
- (d) the route to be flown:

may require bunks or berths to be provided instead of the required standard of seats on specified route sectors. These bunks or berths should provide, as far as possible, maximum opportunity for comfortable and uninterrupted rest.

2.11 When, at the end of a duty period, the requirements of two or more rest periods coincide, the longest rest period applicable in the particular circumstances shall be taken.

2.12 A tour of duty which includes a duty period exceeding 8 hours, including any time between midnight and 6 am local time (departure point) on two successive nights may not be flown by any flight crew member more often than once in any 7 consecutive days or more often than on two occasions in any 28-day period.

2.13 The total hours of duty of any flight crew member in any consecutive 30-day period shall not exceed 200 hours.

2.14 In meeting the provisions of this document an operator shall not roster a flight crew member on a flight or series of flights that cannot be completed within the requirements of these limitations on at least 80 percent occasions.

2.15 *Reserved*

2.16 The basic flight time limitations and the general provisions relating thereto as specified herein or as otherwise approved by the Director shall apply alike to all air transport operations, with the exception that they shall not apply where the flight is one which ought to be made in the interests of safety or health of any person. In such cases it will be the responsibility of the pilot-in-command to be satisfied that the safety of the flight will not be endangered by reason of any flight crew member exceeding the applicable flight time limitations.

SECTION 3 – INTERNAL OPERATIONS

3.1 *Single-pilot crews*

3.1.1 Pilots – Instrument Flight Rules (IFR) Operations

A pilot of an aircraft which carries one pilot on internal air transport operations planned wholly or in part under IFR shall be subject to the following flight time limitations:

- (a) The pilot shall not be rostered to fly in excess of 6 hours in any one duty period.
- (b) The pilot shall not be rostered for a duty period of more than 11 hours.
- (c) A duty period already commenced may be extended in flight time to 6 hours 30 minutes to complete disrupted schedules.

(d) During any duty period exceeding 4 hours the pilot shall have a rostered meal period on the ground of not less than 30 minutes free of duty. Provision shall be made for such a meal period within the first 5 hours of a duty period and thereafter at intervals of not more than 4 hours from the completion of the preceding meal period.

(e) When the pilot has flown more than 6 hours, or has been on duty more than 11 hours in any 24 consecutive hours he or she shall have, on completion of that duty period, a rest of not less than 12 consecutive hours, including the hours between midnight and 6 am or extended to include that period, up to a maximum of 24 consecutive hours.

(f) When the pilot has flown more than 12 hours or been on duty more than 22 hours in any 48 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 24 consecutive hours.

(g) In addition to any rest period applicable at the end of the pilot's last duty period he or she shall have a recreational period of not less than 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible he or she shall have this recreational period free of all duties at the conclusion of that rest period.

(h) The pilot shall not fly, and an operator shall not roster the pilot to fly, in excess of:

- 30 hours in any 7 consecutive days
- 90 hours in any 30 consecutive days
- 250 hours in any 90 consecutive days

3.1.2 *Reserved*

3.1.3 Pilots – Visual Flight Rules (VFR) Operations

A pilot of an aircraft which carries one pilot on internal air transport operations, planned to be conducted wholly under VFR, shall be subject to the following flight time limitations:

(a) The pilot shall not be rostered to fly in excess of 8 hours in any one duty period.

(b) The pilot shall not be rostered for a duty period of more than 11 hours.

(c) A duty period already commenced may be extended in flight time to 8 hours 30 minutes, and duty time to 12 hours, to complete disrupted schedules.

(d) During any duty period exceeding 4 hours the pilot shall have a rostered meal period on the ground of not less than 30 minutes free of any duty. Provision shall be made for such a meal period within the first 5 hours of a duty

period and thereafter at intervals of not more than 4 hours from the completion of the preceding meal period.

(e) When the pilot has flown more than 8 hours, or has been on duty more than 11 hours in any 24 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 12 consecutive hours including the hours between midnight and 6 am, or extended to include that period up to a maximum of 24 consecutive hours.

(f) When the pilot has flown more than 16 hours or been on duty more than 22 hours in any 48 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 24 consecutive hours.

(g) In addition to any rest period applicable at the end of the pilot's last duty period he or she shall have a recreational period of not less than 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible he or she shall have this recreational period free of all duties at the conclusion of that rest period.

(h) The pilot shall not fly, and an operator shall not roster the pilot to fly, in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 300 hours in any 90 consecutive days

3.2 Two-pilot crews

3.2.1 A pilot of an aircraft which carries two pilots on internal air transport operations shall be subject to the following flight time limitations:

(a) The pilot shall not be rostered to fly in excess 8 hours in any one duty period.

(b) The pilot shall not be rostered for a duty period of more than 11 hours.

(c) A duty period already commenced may be extended in flight time to 8 hours 30 minutes, and duty time to 12 hours, to complete disrupted schedules.

(d) When the pilot has flown more than 8 hours, or has been on duty more than 11 hours in any 24 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 12 consecutive hours, including the hours between midnight and 6 am or extended to include that period, up to a maximum of 24 consecutive hours.

(e) When the pilot has flown more than 16 hours or been on duty more than 22 hours in any 48 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 24 consecutive hours.

(f) When the pilot has flown more than 20 hours or been on duty more than 29 hours in any 72 consecutive hours, he or she shall have, on completion of that duty period, a rest period of not less than 24 consecutive hours.

(g) When, for any reason, a pilot has flown for more than 8 hours or where a duty period exceeds 11 hours, he or she shall have, on completion of that duty period and in addition to his or her rest period after that duty or series of duties, a consecutive rest period of one hour for each 15 minutes, or the greater part thereof, flight time exceeds 8 hours or duty time exceeds 11 hours.

(h) When, for any reason outside the pilot's control, or by an approved dispensation, the pilot has flown more than 8 hours 30 minutes or has been on duty more than 12 hours in any one duty period, he or she shall have, on completion of that duty period, a rest period of not less than 24 consecutive hours.

(i) In addition to any rest period applicable at the end of the pilot's last duty period, he or she shall have a recreational period of 24 consecutive hours at home base free of all duties at least once on every 7 days. If, because of the length of the required rest period, this is not possible he or she shall have this recreational period free of all duties at the conclusion of that rest period.

(j) A pilot shall not fly, and an operator shall not roster a pilot to fly, in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 300 hours in any 90 consecutive days

3.2.2 Flight crew members other than pilots

The flight time limitations as set out in paragraph 3.2.1 shall apply equally to any flight crew member who is assigned for duty on an aircraft engaged in internal air transport operations as part of a crew which has two pilots.

SECTION 4 – RESERVED

SECTION 5 – EXTERNAL OPERATIONS – TURBO-JET AIRCRAFT

5.1 Two-pilot crews

5.1.1 A pilot of an aircraft which carries two pilots on external operations shall be subject to the following flight time limitations:

(a) The pilot shall not be rostered to fly in excess of 8 hours in any one duty period.

(b) The pilot shall not be rostered for a duty period of more than 11 hours.

- (c) A duty period already commenced may be extended in flight time to 9 hours and duty time to 13 hours to complete disrupted schedules.
- (d) When a pilot flies more than 8 hours or has been on duty more than 11 hours in any 24 consecutive hours, he or she shall have, at the completion of that duty period, a rest period of not less than 12 consecutive hours, including the hours between midnight and 6 am local time, or 14 consecutive hours.
- (e) When a pilot has flown more than 16 hours or has been on duty for more than 22 hours in any 48 consecutive hours, he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.
- (f) When a pilot has flown more than 20 hours or been on duty for more than 29 hours in any 72 consecutive hours, he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.
- (g) On return to home base after a tour of duty a pilot's rest period shall not be less than twice the number of hours flown as an operating crew member since leaving home base on that tour of duty. Except that, when a tour of duty includes a stay in an area having a time difference of more than 2 hours, the rest period at home base on completion of the tour of duty shall not be less than 72 consecutive hours.

5.1.2 When a pilot is temporarily detached at a place other than home base and the tour of duty is completed at that place, the rest period applicable to home base shall apply.

5.1.3 When a pilot begins a tour of duty at home base and completes it at a place of detachment or begins a tour of duty at the place of detachment and completes it at home base, the rest period applicable shall be that which applies when the place of detachment is also regarded as home base.

5.1.4 In addition to the rest period applicable at the end of the pilot's last duty period, he or she shall have a recreational period of 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible the pilot shall have this recreational period free of all duties at the conclusion of that rest period.

5.1.5 When at home base, the rest period applicable and the recreational 24 hours must together include a continuous period embracing the hours between midnight and 6 am local time on two successive nights or extended to include that period.

5.1.6 A pilot shall not fly and an operator shall not roster a pilot to fly in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 250 hours in any 84 consecutive days

5.2 Three-pilot crews

5.2.1 Crew composition

For the purpose of this document a three-pilot flight crew shall include:

- (a) At least two pilots normally rostered to act as pilot-in-command for the particular class of operation; or
- (b) One pilot normally rostered to act as pilot-in-command for the particular class of operation and two pilots possessing qualifications approved by the Director for the operation.

5.2.2 Three-pilot crew limitations

5.2.2.1 A pilot of an aircraft which carries a three-pilot crew, as defined in paragraph 5.2, on external operations shall be subject to the following flight time limitations:

- (a) When the flight crew includes at least 2 pilots normally rostered to act as pilot-in-command for the particular class of operation:

- (1) A pilot shall not be rostered for a duty period of more than 18 hours.
- (2) A duty period already commenced may be extended in duty time to 20 hours to complete disrupted schedules.

- (b) When the flight crew includes one pilot normally rostered to act as pilot-in-command for the particular class of operation and two pilots possessing qualifications approved by the Director for the operation:

- (1) A pilot shall not be rostered for a duty period of more than 14 hours.
- (2) A duty period already commenced may be extended in duty time to 16 hours to complete disrupted schedules.

5.2.2.2 Within each duty period the pilot-in-command shall establish a roster of periods of active duty and rest for each pilot which may only be varied at the discretion of the pilot-in-command.

5.2.2.3 Adequate rest facilities are to be provided on the aircraft.

5.2.2.4 On completion of the duty period a pilot shall have a rest period on the ground calculated as follows:

- (a) For the first 11 hours duty – 10 consecutive hours.
- (b) For each subsequent hour's duty – 2 additional hours, up to a maximum of 24 consecutive hours.

5.2.2.5 When a pilot has been on duty for more than 24 hours in 48 consecutive hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.2.2.6 When a pilot has been on duty for more than 32 hours in any 72 consecutive hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.2.2.7 On return to home base after a tour of duty, the pilot's rest period shall not be less than twice the number of hours flown as an operating flight crew member since leaving home base on that tour of duty. Except that, when a tour of duty includes a stay in an area having a time difference of more than two hours, the rest period at home base on completion of the tour of duty shall not be less than 72 consecutive hours.

5.2.2.8 When a pilot is temporarily detached at a place other than home base and a tour of duty is completed at that place, the rest period applicable to home base shall apply.

5.2.2.9 When a pilot begins a tour of duty at home base and completes it at a place of detachment or begins a tour of duty at the place of detachment and completes it at home base, the rest period applicable shall be that which applies when the place of detachment is also regarded as the pilot's home base.

5.2.2.10 In addition to the rest period applicable at the end of a pilot's last duty period, he or she shall have a recreational period of 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible, the pilot shall have this recreational period free of all duties at the conclusion of that rest period.

5.2.2.11 When at home base, the rest period applicable and the recreational 24 hours must together include a continuous period embracing the hours between midnight and 6 am on two successive nights or extended to include that period.

5.2.2.12 A pilot shall not fly, and an operator shall not roster a pilot to fly, in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 250 hours in any 84 consecutive days

5.3 Reserved

5.4 Flight Engineers

5.4.1 A flight engineer of an aircraft which carries only one flight engineer as part of a crew on external operations shall be subject to the following flight time limitations:

5.4.1.1 The flight crew member shall not be rostered to fly in excess of 9 hours in any one duty period.

5.4.1.2 The flight crew member shall not be rostered for a duty period of more than 12 hours.

5.4.1.3 A duty period already commenced may be extended in flight time to 10 hours and duty time to 14 hours to complete disrupted schedules.

5.4.1.4 When the flight crew member has flown more than 9 hours or has been on duty more than 12 hours in any 24 consecutive hours he or she shall have, at the completion of that duty period, a rest period of not less than 12 consecutive hours, including the hours between midnight and 6 am local time, or 14 consecutive hours.

5.4.1.5 When the flight crew member has flown more than 18 hours or has been on duty for more than 24 hours in any 48 consecutive hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.4.1.6 When the flight crew member has flown more than 23 hours or has been on duty for more than 32 hours in any 72 consecutive hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.4.1.7 On return to home base after a tour of duty the flight crew member's rest period shall not be less than twice the number of hours flown since leaving home base on that tour of duty. Except that, when a tour of duty includes a stay in an area having a time difference of more than 2 hours, the rest period at the home base on completion of a tour of duty shall not be less than 72 consecutive hours.

- When the flight crew member is temporarily detached at a place other than home base and a tour of duty is completed at that place, the rest period applicable to home base shall apply.
- When the flight crew member begins a tour of duty at home base and completes it at the place of detachment or begins a tour of duty at the place of detachment and completes it at home base, the rest period applicable

shall be that which applies when the place of detachment is also regarded as home base.

5.4.1.8 In addition to the rest period applicable at the end of the flight crew member last duty period, he or she shall have a recreational period of 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible, the flight crew member shall have this recreational period free of all duties at the conclusion of that rest period.

- When at home base, the rest period applicable and the recreational 24 hours must together include a continuous period embracing the hours between midnight and 6 am on two successive nights or extended to include that period.

5.4.1.9 The flight crew member shall not fly, and an operator shall not roster the member to fly, in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 250 hours in any 84 consecutive days

5.4.2 A flight engineer of an aircraft which carries two flight engineers or one flight engineer and a pilot who has completed an approved training course and who is certified by the company to give in-flight relief to the flight engineer shall be subject to the following flight time limitations:

5.4.2.1 The flight crew member shall not be rostered for a duty period exceeding 18 hours.

5.4.2.2 A duty period already commenced may be extended in duty time to 20 hours to complete disrupted services.

5.4.2.3 Within each duty period the pilot-in-command shall establish a roster of periods of active duty and rest for each flight crew member which may only be varied at the discretion of the pilot-in-command.

5.4.2.4 Adequate rest facilities are to be provided on the aircraft.

5.4.2.5 On completion of the duty period the flight crew member shall have a rest period on the ground calculated as follows:

- (a) For the first 11 hours – 10 consecutive hours.
- (b) For each subsequent hour's duty – 2 additional hours, up to a maximum of 24 consecutive hours.

5.4.2.6 When the flight crew member has been on duty for more than 24 hours in any consecutive 48 hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.4.2.7 When the flight crew member has been on duty for more than 32 hours in any consecutive 72 hours he or she shall have, at the completion of that duty period, a rest period of not less than 24 consecutive hours.

5.4.2.8 On return to home base after a tour of duty the flight crew member's rest period shall not be less than twice the number of hours flown as an operating crew member since leaving home base on that tour of duty. Except that, when a tour of duty includes a stay in an area having a time difference of more than 2 hours the rest period at the home base on completion of a tour of duty shall not be less than 72 consecutive hours.

- When the flight crew member is temporarily detached at a place other than home base and a tour of duty is completed at that place the rest period applicable at home base shall apply.
- When the flight crew member begins a tour of duty at home base and completes it at a place of detachment or begins a tour of duty at the place of detachment and completes it at home base, the rest period applicable shall be that which applies when the place of detachment is also regarded as home base.

5.4.2.9 In addition to the rest period applicable at the end of the flight crew member's last duty period he or she shall have a recreational period of 24 consecutive hours free of all duties at least once in every 7 consecutive days. If, because of the length of the required rest period, this is not possible, the flight crew member shall have this recreational period free of all duties at the conclusion of that rest period.

- When at home base, the rest period applicable and the recreational 24 hours must together include a continuous period embracing the hours between midnight and 6 am on two successive nights or extended to include that period.

5.4.2.10 The flight crew member shall not fly as an operating crew member, and an operator shall not roster the member to fly as an operating crew member, in excess of:

- 35 hours in any 7 consecutive days
- 100 hours in any 28 consecutive days
- 250 hours in any 84 consecutive days*

CONSULTATION DETAILS

(This statement does not form part of the rules contained in Part 121 and Part 123, Amendment No. 1. It provides details of the consultation undertaken in making the rules.)

Background to the Rules

In April 1988 the Swedavia - McGregor Report on civil aviation regulation in New Zealand was completed. Following the recommendations contained in that report, the Air Transport Division of the Ministry of Transport commenced a complete review and rewrite of all existing civil aviation legislation and where necessary initiated new legislation for the areas not previously covered.

Considerable research was carried out to determine the format for the new legislation. It was decided that the most suitable legislative framework should incorporate the advantages of the system being developed by the European Joint Aviation Authorities and published as Joint Aviation Requirements (JAR), and of the Federal Aviation Administration (FAA) of the United States of America. The JAR are structured in a manner similar to the FAA's Federal Aviation Regulations (FAR) and aim to achieve maximum harmonisation while allowing for national variations.

New Zealand's revised legislation will be published as Civil Aviation Rules (CAR) divided into Parts. Each Part will convey a series of individual rules which relate to a particular aviation activity.

Accompanying each Part of the CAR will be at least one associated Advisory Circular (AC) which will expand, in an informative way, specific requirements of the CAR and describe an acceptable means of compliance. An AC may contain an example of the minimum acceptable practice or standard which would be necessary to meet a rule.

The CAR numbering system is based on the FAR system. As a general principle the subject matter of a Part will be the same or similar to the FAR although the title may differ to suit New Zealand terminology. Where a CAR does not readily equate with a FAR number code, a number has been selected that does not conflict with any existing FAR Part.

The FAR has been used as the starting point for the development of many CAR but there are likely to be significant differences in the content of the rule due to differing New Zealand conditions and specific requirements of the New Zealand legal system.

The objective of the new rules system is to strike a balance of responsibility between the State authority and those who provide services and exercise privileges in the civil aviation system. This balance must enable the State authority to maintain continuing regulatory control and supervision while

providing the maximum flexibility for participants to develop their own means of compliance.

Section 7 of the Civil Aviation Act 1990 (the Act) provides for the requirement to hold an aviation document for carrying out particular civil aviation activities. Section 12 of the Act requires the holders of such documents to carry out their activities safely and in accordance with the relevant prescribed safety standards and practices.

Notice of Proposed Rule Making

To provide public notice of, and opportunity for comment on the proposed rule amendment, the Authority, on 6 July 1994 issued Notice of Proposed Rule Making (NPRM) 94-2 under Docket number 1123. This Notice proposed the amendment of Part 121, Subpart K and Part 123, Subpart K.

Supplementary Information

All comments made on the Notice of Proposed Rule Making are available in the rules docket for examination by interested persons. A report summarising each substantive contact with the Civil Aviation Authority contact person concerning this rule making has been filed in the docket.

Availability of the Document

Any person may view a copy of these rules at Aviation House, 1 Market Grove, Lower Hutt. Copies may be obtained from the Civil Aviation Authority of New Zealand, PO Box 31-441, Lower Hutt.

Summary of Comments on Docket Number 1123 NPRM

1. General Comments on the NPRM

From the two submissions received, 8 general issues were raised which are discussed as follows:

1.1 The New Zealand Airline Pilots Association (NZALPA) is totally opposed to NPRM 94-2.

Civil Aviation Authority response: NZALPA is entirely within its rights to state this position clearly. This stance may be the result of a misunderstanding of the new environment created by the Civil Aviation Act 1990 and the changing relationships, between the regulators and the regulated, being effected by the Civil Aviation Authority through the new Civil Aviation Rules. This relationship is based on the premise that—

- Those operating within the aviation system should be made primarily responsible for the safety of their operation by establishing quality assurance systems that ensure conformity with standards set by the CAA.

- The Civil Aviation Authority establishes those standards through the Civil Aviation Rules and ensures the operator conforms, and continues to conform, to the standards through monitoring the application of the quality assurance systems
- Organisations will be allowed more flexibility to enable them to develop their own internal means of compliance.

New Rule Subparts 121K and 135K are entirely consistent with this approach.

1.2 NZALPA requires a return to a prescriptive flight and duty regime – CASO 3 or similar – and requires a basic scheme for all aviation in New Zealand.

Civil Aviation Authority response: The Civil Aviation Authority is seeking to improve safety from levels that could be achieved through the provision of a prescriptive regime. In this sense a return to the previous approach would seem counter productive.

Changes to CASO 3 were traditionally effected through long periods of negotiation between various industry sector representatives during which the separation of industrial issues from safety issues became difficult. In this process the Civil Aviation Authority became the intermediary. This was not seen as productive in safety terms.

Rule Subparts 121K and 135K now allow this activity to take place under a new dynamic mechanism. Operators and their crews are now able to negotiate schemes directly and present them for acceptance by the Civil Aviation Authority subject to the following criteria—

- They must comply with the Rule in terms of content and not exceed the 365 and 28 day period hard limits.
- The scheme must lie within currently acceptable international limits, and
- The scheme must be supported by an acceptable quality assurance system.

The latter requirement is more onerous than anything previously required. The introduction of proven and effective management systems at the operational level are intended to improve the application of safer operating practices. The requirement for operators to monitor flying activity including flight crew feedback, and provide corrective actions through the process of management review is seen to be a positive and improved approach to fatigue safety management. In some cases active flight crew fatigue monitoring programmes are being considered. CAA's role is now one of setting the minimum standards, approving schemes against the standards, monitoring compliance through safety audit and establishing corrective actions where necessary.

1.3 NZALPA requires the Civil Aviation Authority to intercede in airline management in the flight and duty area.

Civil Aviation Authority response: The Civil Aviation Authority does not think that it is appropriate for it to intercede in airline management in any area of its operational activity, including flight and duty limits unless established standards are not observed. As far back as the Tymms report (1948) this approach has been seen as detrimental to aviation safety. The tendency to over-regulate and the extension of Government beyond the usual levels of intervention can amount to an assumption of management. This approach could cause the operator to place reliance on the Civil Aviation Authority for its own safety actions.

The Civil Aviation Act 1990 clarified safety responsibilities within the aviation system. Previously the approach was based upon the unrealistic notion that the State alone is responsible for safety. The Act is based on the premise that those operating within the aviation system are primarily responsible for their own performance while ensuring their operations comply with safety standards. Rule Subparts 121K and 135K are consistent with this approach. The CAA's role is to carefully monitor the application of approved schemes.

1.4 NZALPA maintains that fatigue levels are increasing due to changes in flight and duty times and is thus compromising flight safety.

Civil Aviation Authority response: It is noted that evidence has been provided to show that fatigue levels are increasing due to changes in flight and duty time and that this may be compromising safety. It is also noted that the scientific validity of this survey is currently being challenged. The Civil Aviation Authority does not intend to comment in detail regarding this aspect of the proposal. The inherent difficulty in defining accumulated fatigue due to irregular and extended working hours is compounded by a large number of other factors.

The new rule allows these factors to be taken into consideration during the development of a scheme by a particular operator. The outer boundary for the limits in the scheme is provided by the hard limits within the rule which are based upon internationally accepted standards (recommended by ICAO). Other scheme criteria can be established, within the hard limits, on the basis of internationally recognised operating practices from the major aviation states.

All fatigue events are required to be reported into the operator's internal quality assurance system that supports the appropriate scheme. These events are then required to be analysed, reviewed, and the appropriate corrective action taken. The Civil Aviation Authority will monitor this activity by initially approving the scheme (entry control) and then conducting an ongoing programme of safety audits.

The Civil Aviation Authority considers that this approach has the potential to be a more effective means of safety management than previously existed.

1.5 NZALPA suggests that scientific input is needed in the development of acceptable flight and duty rules.

Civil Aviation Authority response: The Civil Aviation Authority agrees with this comment, specifically where internal quality assurance programmes provide data to support safe operating limits. The size and nature of the New Zealand Civil aviation system does not favour a *go-it-alone* approach. To a large extent reliance is placed upon data and criteria gathered in other similar but larger aviation systems with appropriate regard for differing local operating conditions. It is seen as counter-productive and wasteful for extensive effort and financial expenditure to be utilised in the production of a discreet, New Zealand-based, scientifically-generated flight and duty scheme of limits, for the many and varied types of aircraft operation.

1.6 NZALPA maintains that consultation with it has been inadequate.

Civil Aviation Authority response: The Civil Aviation Authority endeavours to ensure that adequate consultation takes place with respect to any rule making activity.

A recent decision by Justice McGechan considered the nature of consultation (see *Air New Zealand Ltd v Wellington International Airport Ltd*, High Court, Wellington, CP403/91). He stated that consultation is an intermediate situation involving meaningful discussion. He approved the following encapsulations of the concept:

Consulting involves the statement of a proposal not yet fully decided upon, listening to what others have to say, considering their responses and then deciding what will be done.

To consult is not merely to tell or present. Nor, at the other extreme, is it to agree.

Justice McGechan considered that where adequate time, information, and opportunity to comment had been given to the parties that the consultation process was satisfactory.

In this regard a transparent and practical rule making process has been established in rule Part 11 consisting of an informal and formal stage of consultation. Detailed proposals have been provided to NZALPA at all stages of development of rule Subparts 121K and 135K. NZALPA have made substantial proposals against the original informal draft and NPRM in respect of flight crew fatigue.

Disagreement between NZALPA and Civil Aviation Authority is seen to focus on the change in emphasis being taken to safety regulation in New Zealand. They appear uncomfortable with the resulting change in relationship between the industry and the regulators and wish to return to the previous prescriptive "hands on" approach. The Civil Aviation Authority is however committed to the new emphasis and feels that safety will be enhanced as a result of this policy.

Under the normal Part 11 process the Civil Aviation Authority responds to comments made on proposed rules. These responses are then printed in the consultation details of the Final Rule document. In this case the consultation details have been provided to affected parties prior to their publication in the Final Rule document. This approach reflects the controversial nature of this rule making activity and is provided to ensure that all parties are fully informed of the issues and the decisions made by the Civil Aviation Authority.

The Civil Aviation Authority considers that, in view of Justice McGechan's statements on consultation, an adequate consultation process has been undertaken.

1.7 NZALPA suggests commercial organisations cannot be trusted to effect adequate safety regimes.

Civil Aviation Authority response: This issue was not initially identified as a main issue but the Civil Aviation Authority feels that it is significant enough to merit a response. The Civil Aviation Authority believes that aircraft operators have a distinct interest in the safe operation of their aircraft. The notion that they can operate without regard for safety in today's commercial environment is considered unrealistic. In any case commercial operators are not developing safety regimes in isolation.

The Civil Aviation Authority of New Zealand has been established with defined functions and powers to ensure that an acceptable level of aviation safety is achieved in the public interest. The traditional approach to safety regulation has been replaced with a new emphasis where those operating within the aviation system are primarily responsible for their own performance whilst ensuring that their operations comply with established safety standards. The Civil Aviation Authority is comfortable with the new emphasis and feels that safety will be enhanced as a result of this policy.

1.8 Other comment received.

One other comment was received against the NPRM. This was not adverse in nature and sought clarification of two points. These have been addressed in the drafting of the associated Advisory Circular.

FURTHER CONSULTATION DETAILS

The above consultation details were given to The New Zealand Airline Pilots Association (NZALPA) in draft form. A further response was received from NZALPA dated 6 November 1994 outlining the grounds of their opposition to this rule. This response together with CAA's reply is summarised in the following table:

	<i>NZALPA Submission</i>	<i>CAA Response</i>
1.	NZALPA had insufficient time to comment on NPRM	Thirty days were allowed for comment. The NPRM was published as an amendment to the existing rule. It made minor editorial amendments only. It was not intended to re-open discussion on substantive issues which had already been fully debated in the initial rule consultation process.
2.	NZALPA had difficulty accessing information – Insufficient documentation on NPRM 94-2 or NOTAM 30488/94 was made available.	All available supporting documentation has been supplied. The minor nature of the amendment required limited supporting documentation.

3.	Any change to duty time limits should be based on practitioner supported advice based on scientific and factual research.	<p>The limits adopted are those recommended by the ICAO Working Party tasked with amending Annex 6 to the Chicago Convention. These standards are supported by the US and NZALPA. In the absence of scientific research the CAA considers the internationally accepted standards should apply.</p> <p>CAA is well aware of the NASA study on fatigue of flight crew. The CAA has participated with NASA and are aware of concerns raised in that study. CAA is currently awaiting international developments regarding this study.</p>
4.	CAA has ignored reports of experience from other jurisdictions	No reports of standing have been submitted that challenge the internationally accepted standards.
5.	CAA has not responded to the NZALPA practitioner survey	The scientific validity of this survey is in doubt. It is a subjective survey calling for anecdotal accounts of fatigue levels. CAA responded to the survey in the document prepared by Catalyst <i>Interpretation of Submissions Report</i> , and in the Draft Consultation Details.
6.	CAA has ignored the fact that internationally accepted FAR and JAR standards must be seen in context of secondary rules which ensure the standards are never reached.	CAA is not aware of any secondary rules. None have been submitted to CAA in the consultation process.

7.	CAA have a <i>laissez faire</i> philosophy.	CAA strongly disagrees that it has a <i>laissez faire</i> philosophy to aviation safety. CAA considers Subparts K of Parts 121 and 135 will impose greater demands on airlines and provide a higher level of safety. CAA will retain responsibility for entry control and ongoing auditing of operators. As such it retains the proper role of a neutral regulator of safety standards.
8.	NZALPA considers the changed standard for pilot fatigue from a subjective assessment of <i>undue fatigue</i> to <i>fatigue that may endanger flight safety</i> is unsafe.	The changed wording is designed to clarify the rule by specifying its purpose. Rather than answering the question <i>am I likely to suffer from fatigue that is undue?</i> , the pilot is required to ask him or herself <i>am I likely to suffer from fatigue that may endanger flight safety?</i> . The standard is the same, but the latter question is far more clearly safety oriented.
9.	NZALPA argues the Swedavia Report is ignored in that the same standards do not apply to the same class of operators throughout the country.	CAA disagrees. The Subparts K set a common list of specific criteria that all operators must address. The rules also set standards that may not be exceeded. Within those limits flexibility is permitted for different operations to adopt a flight and duty scheme that suits the operator's needs. The reference to Swedavia is misleading. In context the statement refers to airworthiness standards only.
10.	NZALPA suggests CAA should have different standards for different classes of operation.	CAA prefers the more flexible approach described above.

11.	CAA has abrogated its responsibility by placing the onus on pilots to restrict excesses of competing operators through industrial action.	All participants in the system share responsibility for aviation safety. Under the Act and the Air Service Licence the operator is responsible for aircraft and passenger safety. Aircrew have always had responsibility for safety. CAA's responsibility is to set safety standards and monitor compliance with these standards. The standards set are such that industrial action will not be required for the purposes of aviation safety.
12.	CAA has performed no cost benefit analysis. It has pursued a philosophy of safety at a cost acceptable to the operator, not reasonable cost to nation.	CAA provided a cost benefit analysis in the initial consultation phase. CAA has not pursued a philosophy of safety at a cost acceptable to the operator. Some additional costs of compliance have been placed on operators with the requirement to establish a Quality Assurance System, however these costs are considered to be outweighed by the benefits derived from this requirement.
13.	CAA's reliance on quality assurance systems is misplaced. Such systems are open to abuse and take time to implement.	Quality assurance systems are just one part of the regulatory system. CAA continues to maintain oversight through the audit process. Quality assurance systems are an additional requirement to improve previously static management systems. Feedback and review loops should improve safety. The addition of quality assurance systems to the regulatory system makes the system more onerous for the operator.

26.	NZALPA repeat criticism of CAA's adoption of Quality Assurance Systems. Quality Assurance Systems take time to establish, frequently fail to achieve the desired ends and are subject to abuse.	CAA agrees this new approach may take time to optimise. Pilot contribution through feedback loops is the most effective means of achieving this. CAA oversight will ensure schemes achieve their intended ends and that abuse will be limited.
27.	NZALPA express concern that incidents and concerns reported to operators will not be passed on to CAA.	CAA is considering the FAA voluntary reporting system where incidents may be reported without fear of prosecution. This will be addressed in other Subparts of Parts 121 and 135.