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Международная  
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航空组织

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Tel.: +1 (514) 954-8219 ext. 8153

Ref.: AN 12/50-07/37

7 December 2007

**Subject:** Request for data collection on multi-crew pilot licence (MPL) implementation and training programmes

**Action required:** a) Replies to the questionnaire in Attachment A to reach Montreal by 21 March 2008;  
b) Data for the questionnaires in Attachments B, C and D to be collected in accordance with paragraph 5

Sir/Madam,

1. I have the honour to draw your attention to Amendment 167 to Annex 1 — *Personnel Licensing*, applicable on 23 November 2006, which introduced provisions for a new pilot licence, the multi-crew pilot licence (MPL). Whereas the high level requirements for the MPL are contained in Annex 1, detailed guidance on the implementation of MPL training programmes is provided in the *Procedures for Air Navigation Services – Training* (PANS-TRG, Doc 9868). State letter AN 12/48-06/72, dated 18 August 2006, invited all Contracting States to implement the provisions of the PANS-TRG. On 31 May and 6 June 2006, when the Air Navigation Commission, at the seventh and eighth meetings of its 172nd Session, approved the PANS-TRG, it requested that data be gathered to monitor how the MPL is being implemented.

2. Appendix 3 to Chapter 3, sub-paragraph 3.1 f) of PANS-TRG introduced a requirement regarding data collection related to MPL programmes, which reads: “The approved training organization [that conducts MPL training] shall furnish the Licensing Authority with de-identified information concerning each phase of evaluation for each student during and following the programme, including any corrective action found to be necessary. The Licensing Authority shall make this information available to ICAO upon request for the purpose of evaluating the MPL programme on a periodic basis.”

3. May I, therefore, invite you to provide the information on the implementation of MPL, using the questionnaires in the attachments. The collected information will be helpful for States to monitor their approved MPL programmes and will help ICAO to identify areas where the PANS-TRG needs to be expanded or improved in order to address problems that may arise during the implementation of the MPL. This and the development and updates of the guidance material will depend on the quality of

the responses, especially in the first years of MPL implementation. In order to harmonize the data being collected, the questionnaires have been organized into four areas with specific guidelines for the requested data as well as an explanation on the terms used in the questionnaires. The questionnaires and guidelines are detailed in Attachments A, B, C and D. It should be noted that the collected data will also be used to report to the Air Navigation Commission on the status of implementation of the MPL licence.

4. May I request that your replies to the questionnaire in Attachment A be dispatched to reach me not later than 21 March 2008, with any updates sent as necessary.

5. May I also request that you start collecting, from the approved training organizations (ATO) that provide MPL training programmes, the data requested in Attachments B, C and D, preferably using the templates proposed in the attachments. Information should be gathered for each MPL training programme and for each MPL trainee, and include MPL graduate data covering the early operational experience and evaluation from the operators associated with the MPL programmes. Data for individual MPL trainees should be de-identified, using an identification number to allow tracking individual records for analysis.

6. You will receive a request for this data at a future stage, using a process that will be provided once the appropriate data entry tools have been developed.

Accept, Sir/Madam, the assurances of my highest consideration.

Taïeb Chérif  
Secretary General

**Enclosures:**

- A — State regulations and oversight of MPL licences
- B — Approved training organization MPL programme data
- C — MPL graduate: individual data collection form
- D — MPL holder: data on initial operational evaluations

**STATE REGULATIONS AND OVERSIGHT OF MPL**

**1. INTRODUCTION**

1.1 States are requested, in accordance with the provisions of the PANS-TRG, Chapter 3, Appendix 3, 3.1 e) and f), to provide the information in the table below and to update the information when significant changes occur, such as the implementation of MPL in national regulations or the approval of an MPL training organization. The information will help ICAO to monitor the implementation of the new multi-crew pilot licence.

|   |  |                             |
|---|--|-----------------------------|
| <b>State:</b> _____   |  |                             |
| <b>Questions:</b>   | <b>Answers:</b>  |                             |
| 1. Have MPL licence provisions been implemented in your national regulations?<br>If the answer is "NO":<br>Do you plan to introduce MPL provisions in the next 12 months?   | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
|   | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
| 2. Have Approved Training Organization (ATO) provisions been articulated in your national regulations?  | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
| 3. Have you approved an MPL programme provided by an ATO?   | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
| <b>If you replied "Yes" to question 3, please complete questions 4 to 6.</b>  |  |                             |
| 4. If you answered "Yes" in 3 above: <ul style="list-style-type: none"> <li>how many training organizations providing an MPL programme have you approved?</li> <li>how many examiners are qualified for MPL evaluation in the <b>Advanced</b> phase?</li> </ul> | Number of MPL ATO: _____.<br>Number of MPL examiners: _____. |                             |
| 5. Have you established a formal process, which includes industry participation, to monitor implementation of MPL programmes in your State?   | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
| 6. Have you trained inspectors to exercise oversight of MPL ATO?  | Yes <input type="checkbox"/>                                 | No <input type="checkbox"/> |
| Signature: _____<br>Date: _____   |  |                             |

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**ATTACHMENT B** to State letter AN 12/50-07/37

**APPROVED TRAINING ORGANIZATION AND MPL PROGRAMME DATA**

**1. INTRODUCTION**

1.1 States are requested to collect and submit to ICAO the following data regarding their ATOs providing an MPL programme. The information will help ICAO to monitor the implementation of the new multi-crew pilot licence.

1.2 The requested data is divided into two tables: a table of data about each MPL programme approved by the State; and a table of data collected after each class of candidates completes the MPL programme.

**2. APPROVED MPL TRAINING PROGRAMME DATA**

|  |                              |                             |
|--|------------------------------|-----------------------------|
| <b>State:</b> _____  |                              |                             |
| <b>Approved Training Organization (ATO):</b> <b>Name:</b> _____  |                              |                             |
| <b>Location:</b> _____   |                              |                             |
| <b>MPL Trainee Selection Process:</b>  | <b>Answers:</b>              |                             |
| 1. Is there a formal selection process?<br>If “Yes”, answer questions 2 and 3 below.   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 2. Has the selection process been coordinated by the ATO with the operator associated with the MPL programme?  | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| 3. Is the operator associated with the MPL programme directly involved in the selection process?   | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <b>Details of approved MPL programme, per phase of training as defined in Annex 1 — <i>Personnel Licensing and the Procedures for Air Navigations Services — Training (Doc 9868)</i></b> |                              |                             |
| 1. Phase: <u>Core Flying Skills</u> :  |                              |                             |
| • Aircraft total actual flight hours:  | _____                        | hours (including solo time) |
| • Actual aircraft solo time:   | _____                        | hours                       |
| • FSTD Type I, II, III or IV time:   | _____                        | hours                       |
| • Aircraft types used:   | _____.                       |                             |

|   |   |                             |
|---|---|-----------------------------|
| <p>2. Phase: <u>Level 1 (Basic)</u>:</p> <ul style="list-style-type: none"> <li>• Aircraft total actual flight hours: _____ hours (including solo time)</li> <li>• Actual aircraft solo time: _____ hours</li> <li>• FSTD Type II, III or IV time: _____ hours</li> <li>• Aircraft types used: _____.</li> </ul>  |   |                             |
| <p>3. Phase: <u>Level 2 (Intermediate)</u>:</p> <ul style="list-style-type: none"> <li>• FSTD Type III or IV time: _____ hours</li> <li>• Simulated aircraft types used: _____.</li> </ul>  |   |                             |
| <p>4. Phase: <u>Level 3 (Advanced) – type rating</u>:</p> <ul style="list-style-type: none"> <li>• FSTD Type IV time: _____ hours</li> <li>• Other FSTD used: Type: _____ hours</li> <li>• Aircraft type used: _____.</li> <li>• Total pilot time on actual aircraft type: _____ hours</li> <li>• Pilot flying on actual aircraft: number of take-offs and landings: _____</li> </ul>                                     |   |                             |
| <b>Evaluation process in the approved MPL programme</b>   |   |                             |
| <p>1. Do you have qualification requirements for evaluators in each phase of the MPL programme?</p>   | Yes <input type="checkbox"/>  | No <input type="checkbox"/> |
| <p>2. Check the applicable requirements regarding evaluator qualifications for evaluators in the MPL Level 3 (Advanced) phase:</p> <ul style="list-style-type: none"> <li>• Evaluator holds a current ATPL.</li> <li>• Evaluator is type-rated on the aircraft type used in Level 3.</li> <li>• Evaluator holds an instructor rating.</li> <li>• Evaluator is current in line operations on the aircraft type.</li> </ul> | Required qualification.<br>Yes <input type="checkbox"/><br>Yes <input type="checkbox"/><br>Yes <input type="checkbox"/><br>Yes <input type="checkbox"/> |                             |
| <p>3. Theoretical knowledge demonstration:<br/>                 Is the evaluation of the knowledge required by Annex 1, paragraph 2.5.1.2 conducted:</p> <ul style="list-style-type: none"> <li>• by the State Civil Aviation Authority? <input type="checkbox"/>; or</li> <li>• by the Approved Training Organization? <input type="checkbox"/></li> </ul>   |   |                             |

**3. DATA REQUESTED FOR EACH CLASS OF MPL CANDIDATES AFTER GRADUATION**

3.1 For each class of MPL candidates graduating from the ATO, please provide the average **additional** training required to achieve competency, compared to the baseline MPL programme. For example, if the approved MPL programme schedules X hours to achieve competency in a phase of training and the class requires an average of X+Y hours, the average additional training required is Y hours.

3.2 Please also provide, for the Advanced phase of the MPL programme, the rate of repeat of skill test and skill test pass rate.

|   |  |
|---|--|
| <b>State:</b> _____   |  |
| <b>Approved Training Organization (ATO):</b>  | <b>Name:</b> _____<br><b>Location:</b> _____<br><b>MPL class name<sup>1</sup>:</b> _____<br><b>MPL class size:</b> _____ |
| 1. Phase: <u>Core Flying Skills</u> :   |  |
| • Average additional aircraft actual flight hours:  | _____ hours  |
| • Average additional FSTD time:   | _____ hours  |
| 2. Phase: <u>Level 1 (Basic)</u> :  |  |
| • Average additional aircraft actual flight hours:  | _____ hours  |
| • Average additional FSTD time:   | _____ hours  |
| 3. Phase: <u>Level 2 (Intermediate)</u> :   |  |
| • Average additional FSTD time:   | _____ hours  |
| 4. Phase: <u>Level 3 (Advanced) – type rating</u> :   |  |
| • Average additional FSTD time:   | _____ hours  |
| • Pilot flying on actual aircraft type - average additional number of take-offs and landings: | _____  |
| • Rate of repeat of skill test:   | _____ %  |
| • Skill test pass rate:   | _____ %  |

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<sup>1</sup> Identification of the MPL class and the size of the class (number of students at start of class).

**MPL GRADUATE: INDIVIDUAL DATA COLLECTION FORM**

**1. INTRODUCTION**

1.1 States are requested to collect and submit to ICAO the following data regarding individual MPL graduates, using a standardized form. Guidance material regarding the form and the criteria used in the specific manoeuvres and the phases of flight is provided below. The information will help ICAO to monitor the implementation of the new multi-crew pilot licence.

1.2 The guidance below contains a grading scale, reason codes and suggested performance criteria as well as a list of manoeuvres for which data is requested. The grading scale is considered necessary for data analysis, while the reason codes will identify areas where additional guidance material may need to be developed. Each manoeuvre is linked to one or more specific PANS-TRG MPL competency units but is precisely defined in order to harmonize the specific manoeuvre being evaluated to ensure the validity of data comparison, and with appropriate performance criteria being suggested.

**2. GUIDANCE MATERIAL**

**2.1 Task grade explanation**

2.1.1 The grading scale is described in the following table:

| <b>GRADE</b> |                                    | <b>CRITERIA</b>   |
|--------------|------------------------------------|---|
| 0            | Incomplete/<br>Unobserved          | The manoeuvre or phase of flight has not been accomplished or is not required.  |
| 1            | Unsatisfactory                     | Major deviations from the prescribed qualification standards occur, that are not recognized or corrected in a timely manner commensurate with safety. Individual or crew performance could result in hull loss or loss of life. |
| 2            | Debrief required<br>(Satisfactory) | Deviations from the prescribed qualification standards occur and are corrected in a timely manner. Individual or crew performance is safe but would be unsatisfactory if diminished by any amount.                              |
| 3            | Standard                           | No deviations occur from the prescribed qualification standards. Individual or crew performance meets expectations.   |
| 4            | Excellent                          | Performance remains well within the prescribed qualification standards. Individual or crew performance is exemplary.  |

**2.2 Reason codes explanation**

2.2.1 A: Airspeed – occurrence of airspeed deviations exceeding the operator’s prescribed limits for the phase of flight and/or inability to maintain a stabilized airspeed within the operator’s prescribed tolerances when a stable airspeed should be maintained.

2.2.2 AC: Aircraft Control – positive aircraft control is not maintained at all times to the operator’s standards and/or aircraft attitude excursion beyond prescribed limits.

2.2.3 AL: Altitude – occurrence of altitude deviations exceeding the operator’s prescribed limits for the phase of flight.

2.2.4 AM: Automation – inability to use the automation systems to the level required in the operator manuals/automation anomalies are not effectively captured.

2.2.5 E: Execution – incorrect execution of a manoeuvre, exceeding prescribed limits or in contradiction with the instructions of the operator’s manuals.

2.2.6 H: Heading – occurrence of heading deviations exceeding the operator’s prescribed limits for the phase of flight.

2.2.7 K: Knowledge – lack of required aeronautical knowledge.

2.2.8 P: Procedure – incorrect procedure applied (checklist, approach, etc.).

2.2.9 S: SOP<sup>2</sup> – non-compliance with the operator SOP.

2.2.10 R: Radio Communication – clearances are not understood or not accurately read back/not using standard phraseology.

2.2.11 C: Communications – failure to communicate and acknowledge plans and decisions; poor crosstalk; flow of information is not fluid.

2.2.12 D: Decision Making – decisions are not made, not analyzed or not openly verified. An example would be inappropriate continuation of an instrument approach below landing minimums.

2.2.13 T: Teamwork – inability to ensure team coordination when executing required tasks. Example given: hesitation in making queries and in speaking up; automation setup not briefed to other crew members.

2.2.14 W: Workload Management/Planning Skills – inadequacy of workload management/planning skills. Examples include attempting to accomplish certain tasks while engaged as the pilot flying, failing to properly monitor an assigned task, poor approach planning or failure to plan for any contingency, such as a non-normal or emergency situation.

### 3. SPECIFIC MANOEUVRES CRITERIA

*Note – The reference in bracket in each manoeuvre title indicates the relevant competency unit or competency element of PANS-TRG Appendix 2 to Chapter 3.*

#### 3.1 Performance of rejected take-off (PANS-TRG competency element 3.5)

3.1.1 Recognition of the requirement to abort the take-off

3.1.2 Application of the rejected take-off procedure, such as:

- Power reduction

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<sup>2</sup> Operator standard operating procedures

- Spoiler deployment
  - Appropriate brake application
  - Maintain centreline throughout manoeuvre ( $\pm 30$  feet)
  - Internal and external communications to PNF/ATC<sup>3</sup>/cabin
- 3.1.3 Completion of relevant checklist
- 3.1.4 Assessment of the need to evacuate the aircraft
- 3.2 **Management of abnormal and emergency situations  
(PANS-TRG competency element 3.7):  
Low visibility take-off with engine failure shortly after  $V_1$ <sup>4</sup>**
- 3.2.1 Identification of the abnormal condition
- 3.2.2 Interpretation of the abnormal procedure
- 3.2.3 Performance of the procedure for the abnormal condition, such as:
- Establishing wings level attitude with initial heading  $\pm 10$  degrees of runway heading
  - Compliance with appropriate published engine-out procedure
  - Maintenance of climb-out speed ( $+5/-0$  kts of  $V_2$ <sup>5</sup>)
  - Completion of relevant checklist
  - Selection of flaps according to flap speed schedule, without altitude loss or speed loss.
- 3.3 **Management of abnormal and emergency situations  
(PANS-TRG competency element 3.7):  
Windshear during take-off (after  $V_1$ )**
- 3.3.1 Identification of the abnormal condition
- 3.3.2 Interpretation of the abnormal procedure
- 3.3.3 Performance of the procedure for the abnormal condition, such as:
- Application of full power
  - Maintenance of appropriate speed to the documented tolerance for the exercise
  - Respect of stall warning
  - Maintenance of positive climb rate, when performance margin allows
  - Maintenance of configuration
  - Heading  $\pm 10$  degrees
- 3.4 **Management of abnormal and emergency situations  
(PANS-TRG competency elements 3.7, 4.5, 5.5, 6.6 or 7.7):  
Flight control malfunction (as PNF)**
- 3.4.1 Identification of the abnormal condition
- 3.4.2 Interpretation of the abnormal procedure
- 3.4.3 Performance of the procedure for the abnormal condition, such as:
- Completion of the correct checklist procedure
  - Decision making as required
  - Fuel usage monitoring

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<sup>3</sup> Pilot not flying/air traffic control – the PNF is also known as PM (pilot monitoring)

<sup>4</sup> Take-off decision speed

<sup>5</sup> Take-off second segment speed

- 3.5 **Management of abnormal and emergency situations  
(PANS-TRG competency elements 4.5, 5.5 or 6.6):  
CFIT<sup>6</sup> escape manoeuvre**
- 3.5.1 Identification of the abnormal condition
- 3.5.2 Interpretation of the abnormal procedure
- 3.5.3 Perform the procedure for the abnormal condition, such as:
- Application of full power
  - Maintenance of minimum manoeuvring speed  $\pm 5$  kts<sup>7</sup>
  - Respect of stall warning
  - Maintenance of maximum performance climb rate
  - Maintenance of configuration
  - Heading  $\pm 10$  degrees
- 3.6 **Replanning and update of approach briefing  
(PANS-TRG competency element 6.3):  
Late change of approach in IMC<sup>8</sup> and autopilot ON (PNF)**
- 3.6.1 Recheck destination weather and runway in use
- 3.6.2 Reprogramming of the FMS<sup>9</sup> and autopilot mode selection
- 3.6.3 Briefing of instrument approach and landing changes and missed approach
- 3.6.4 Minima set for the approach
- 3.6.5 Recheck fuel status
- 3.7 **Performance of precision approach  
(PANS-TRG competency elements 7.1 and 7.2):  
Engine out hand-flown ILS<sup>10</sup> approach and landing**
- 3.7.1 Briefing and crew coordination
- 3.7.2 Approach execution according to procedures and situation, with the following suggested criteria:
- Localizer within one half dot deviation
  - Glideslope within one half dot deviation
  - Speed  $\pm 10$  kts
- 3.7.3 Selection of optimum approach path, using vertical speed control to achieve vertical path.
- 3.7.4 Performance of speed reduction and flap extension
- 3.7.5 Completion of relevant checklists
- 3.7.6 Initiation of final descent
- 3.7.7 Achievement of stabilized approach criteria
- 3.7.8 Adherence to minima (no altitude deviation below intermediate altitudes or DA<sup>11</sup> allowed)
- 3.7.9 Proper transition to visual segment
- 3.7.10 Landing in touchdown area

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<sup>6</sup> Controlled flight into terrain

<sup>7</sup> knots

<sup>8</sup> Instrument meteorological conditions

<sup>9</sup> Flight management system

<sup>10</sup> Instrument landing system

<sup>11</sup> Decision altitude

- 3.8 **Performance of non-precision approach (PANS-TRG competency element 7.1 and 7.3): Non-precision approach: VOR, NDB<sup>12</sup> (without LNAV/VNAV<sup>13</sup>) and GPS<sup>14</sup> (if applicable)**
- 3.8.1 Briefing and crew coordination, with if a CDFA<sup>15</sup> technique is used:
- DA calculation
  - Intermediate restriction calculations
- 3.8.2 Approach execution according to procedures and situation, with the following suggested criteria:
- Course within one half scale deviation, or for NDB  $\pm 5$  degrees of course bearing
  - Speed  $\pm 10$  kts
- 3.8.3 Selection of appropriate level/mode of automation
- 3.8.4 Selection of optimum approach path, using vertical speed control to achieve vertical path.
- 3.8.5 Performance of speed reduction and flap extension
- 3.8.6 Completion of relevant checklists
- 3.8.7 Initiation of final descent
- 3.8.8 Achievement of stabilized approach criteria
- 3.8.9 Adherence to minima (no altitude deviation below intermediate altitudes or MDA<sup>16</sup> allowed)
- 3.8.10 Go-around initiation if required
- 3.8.11 Proper transition to visual segment
- 3.9 **Performance of circling approach (PANS-TRG competency element 7.4.2): Circling approach in weather representative of minima**
- 3.9.1 See criteria for non-precision approach in 3.8 above, with specific circling approach criteria, such as:
- Briefing including detailed missed approach briefing if visual reference lost
  - Selection of appropriate minima (PANS-OPS/TERPS<sup>17</sup>)
  - Crew coordination concerning visual reference
  - Speed control during circling approach  $+10/-5$  kts
  - Bank angle not greater than 30 degrees
  - Landing in touchdown area on speed  $\pm 5$  kts
- 3.10 **Performance of go-around (PANS-TRG competency element 7.8): Manual go-around procedures**
- 3.10.1 Initiation of go-around procedure, such as:
- Power application
  - Configuration changes (no gear retraction until positive rate of climb, and flap

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<sup>12</sup> VHF omnidirectional radio range, non directional beacon

<sup>13</sup> Lateral navigation/vertical navigation autoflight modes

<sup>14</sup> Global positioning system

<sup>15</sup> Continuous descent final approach

<sup>16</sup> Minimum descent altitude

<sup>17</sup> ICAO *Procedures for Air Navigation Services – Aircraft Operations* (Doc 8168)/United States Federal Aviation Administration Terminal Instrument Procedures

- retraction speed schedule as per SOP)
  - Maintenance of speed schedule  $\pm 10$  kts
- 3.10.2 Navigation according to missed approach procedure, including altitude restriction compliance
- 3.10.3 Completion of relevant checklists
- 3.10.4 Communication with ATC and crew members
- 3.11 **Performance of go-around and management of abnormal situations (PANS-TRG competency elements 7.8 & 8.3):  
Rejected landing procedures**
  - 3.11.1 Identification of the abnormal condition
  - 3.11.2 Interpretation of the abnormal procedure
  - 3.11.3 Performance of the procedure for the abnormal condition, such as:
    - Same criteria as for the manual go-around procedures in 3.10 above
    - The additional feature is the decision process after an unanticipated event requires this manoeuvre
- 3.12 **Performance of landing  
(PANS-TRG competency element 8.1):  
Crosswind landing at max. demonstrated crosswind limit**
  - 3.12.1 In addition to the performance criteria in PANS-TRG, 8.1 of Appendix 2 to Chapter 3, the following criteria provide guidance for the specific manoeuvre:
    - Speed additive calculation as per SOP
    - Maintenance of speed  $\pm 10$  kts
    - Centreline tracking of runway within one half dot localizer deviation while airborne
    - Maximum bank angle respected (aircraft dependant)
    - Centreline tracking of runway for touch-down and roll out within  $\pm 30$  feet
- 4. **PHASES OF FLIGHT CRITERIA**
  - 4.1 **General**
    - 4.1.1 Compliance with SOP, including checklist usage and standard callouts should apply to all phases of flight. Guidance on the competency units are contained in PANS-TRG, Appendix 2 to Chapter 3 for all phases of flight. The competency units should be demonstrated while piloting as PF<sup>18</sup> and as PNF unless the function has no impact on performance.
  - 4.2 **Ground and pre-flight operations**
  - 4.3 **Take-off operations**
  - 4.4 **Climb operations**
  - 4.5 **Cruise operations**
  - 4.6 **Descent operations**
  - 4.7 **Approach operations**
  - 4.8 **Landing operations**
  - 4.9 **After-landing and post-flight operations**

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<sup>18</sup> Pilot Flying

## 5. MPL DATA COLLECTION FORM (2 PAGES)

| ICAO MPL Data Collection Form   |                  |  |  |
|---|------------------|--|--|
| Operator <sup>i</sup> : _____   |                  | Aircraft Type <sup>ii</sup> : _____    |  |
| MPL Graduate # <sup>iv</sup> : _____  |                  | ATO <sup>iii</sup> : _____             |  |
| MPL course result: <input type="checkbox"/> Satisfactory; <input type="checkbox"/> Unsatisfactory; <input type="checkbox"/> Not completed |                  | State <sup>v</sup> : _____             |  |
|   |                  | Date MPL issued <sup>vi</sup> :<br>/ / |  |
| <b>Task Grade:</b>  |                  | <b>Reason Codes:</b>                   |  |
| 0. Incomplete/Unobserved  | A: Airspeed      | K: Knowledge                           | W: Workload Management/<br>Planning Skills |
| 1. Unsatisfactory   | AC: Acft Control | P: Procedure                           |  |
| 2. Debrief required   | AL: Altitude     | S: SOP <sup>vii</sup>                  |  |
| 3. Standard   | AM: Automation   | C: Communications                      |  |
| 4. Excellent  | E: Execution     | D: Decision Making                     |  |
| <i>Grade all activities.</i>  | H: Heading       | T: Teamwork                            |  |
| Enter up to 3 reason codes for all grades 1 or 2, separated by a comma (“,”). E.g.: AC, AM, E   |                  |  |  |

| Final Check – Specific Manoeuvres (Flight Simulation Training Device)  |       |              |                          |
|--|-------|--------------|--------------------------|
| Specific Manoeuvres <sup>viii</sup>  | Grade | Reason Codes | TRG                      |
| 1. **Rejected take-off operations <sup>viii</sup>  |       |              | <input type="checkbox"/> |
| 2. Low visibility take-off with engine failure shortly after V1  |       |              |                          |
| 3. **Windshear during take-off (after V1) <sup>viii</sup>  |       |              | <input type="checkbox"/> |
| 4. **Flight control malfunction (PNF) <sup>viii</sup>  |       |              | <input type="checkbox"/> |
| 5. **CFIT <sup>ix</sup> escape manoeuvre <sup>viii</sup>   |       |              | <input type="checkbox"/> |
| 6. **Late change of approach in IMC and autopilot ON (PNF) <sup>viii</sup>   |       |              | <input type="checkbox"/> |
| 7. Engine out hand-flown ILS approach and landing  |       |              |                          |
| 8. Non-precision approach: <input type="checkbox"/> VOR; <input type="checkbox"/> NDB (Without LNAV/VNAV)<br><input type="checkbox"/> GPS (if applicable) <sup>x</sup> |       |              |                          |
| 9. **Circling approach in weather representative of minima <sup>viii</sup>   |       |              | <input type="checkbox"/> |
| 10. **Manual go-around procedures <sup>viii</sup>  |       |              | <input type="checkbox"/> |
| 11. **Rejected landing procedures <sup>viii</sup>  |       |              | <input type="checkbox"/> |
| 12. **Crosswind landing at max. demonstrated crosswind limit <sup>viii</sup>   |       |              | <input type="checkbox"/> |

| Final Check – Phases of Flight (Flight Simulation Training Device) |       |             |   |
|--|-------|-------------|---|
| Phases of Flight   | Grade | Reason Code | Instructions: For any phase of flight graded 1 or 2, enter one reason code and, if desired, provide <b>comments</b> in this column. |
| 1. Ground and pre-flight operations                                |       |             |   |
| 2. Take-off operations   |       |             |   |
| 3. Climb operations  |       |             |   |
| 4. Cruise operations   |       |             |   |
| 5. Descent operations  |       |             |   |
| 6. Approach operations   |       |             |   |
| 7. Landing operations  |       |             |   |
| 8. After landing and post-flight operations                        |       |             |   |

| <b>MPL Final Graduation Data</b>  |                     |                                      |                                |
|---|---------------------|--------------------------------------|--------------------------------|
| <b>Knowledge requirement demonstration - grade<sup>xi</sup>:</b>  |                     | %                                    |                                |
| <b>English language proficiency level<sup>xii</sup> demonstrated: ____ (1 to 6; or 0 if not demonstrated)</b> |                     |                                      |                                |
| <b>Approved flight simulation training devices – total time (See Annex 1, Appendix 3)</b>                     |                     |                                      |                                |
| Type I: ____ hours  | Type II: ____ hours | Type III: ____ hours                 | Type IV: ____ hours            |
| <b>Total time in actual aircraft:</b>   |                     |                                      |                                |
| PIC/Solo: ____ hours  | Dual: ____ hours    | On type <sup>xiii</sup> : ____ hours | + Take-offs and landings: ____ |

**ADDITIONAL COMMENTS:**

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<sup>i</sup> ICAO 3-letter code of the operator associated with the MPL programme of the ATO.

<sup>ii</sup> ICAO aircraft type designator (see <http://www.icao.int/anb/ais/8643/index.cfm>).

<sup>iii</sup> Approved training organization for MPL graduate.

<sup>iv</sup> The MPL graduate number from the ATO is a unique ID number needed to track individual records for progress analysis, but does not require identification details.

<sup>v</sup> State that will issue/issued the MPL license and that has approved the ATO.

<sup>vi</sup> Date when the MPL was issued (filled in as dd/mm/yy).

<sup>vii</sup> SOP: standard operating procedures used by the ATO (which should reflect the operator’s SOP).

<sup>viii</sup> The manoeuvres preceded by “\*\*\*” may be accomplished during training if proficiency is demonstrated during training and the checkbox in the TRG column is ticked.

<sup>ix</sup> Controlled Flight Into Terrain.

<sup>x</sup> Data for the two lines of non-precision approaches if applicable: VOR or NDB; and GPS if applicable.

<sup>xi</sup> Grade as a percentage. Example: 74 per cent meaning 74 over 100 (only integer numbers to be used).

<sup>xii</sup> As per Annex 1, paragraph 1.2.9, Appendix 1 and Attachment A, for the English language. If the graduate’s English language proficiency has not been assessed by a language proficiency evaluator, insert the digit 0 (zero).

<sup>xiii</sup> Aircraft used in advanced phase of the MPL programme (type-rating): actual flight time and number of take-offs and landings.

**MPL HOLDER: DATA ON INITIAL OPERATIONAL EVALUATIONS**

**1. INTRODUCTION**

1.1 States are requested to collect and submit to ICAO the following data on individual MPL holders related to their initial line-checks, as flight crew of the operator associated with the MPL programme. Data is collected using a standardized form. The data is requested for all initial operational line-checks until, and including, the second successful line-check.

1.2 Some additional data on the amount of initial operational training is requested on the form when the MPL holder completes his/her first successful line-check.

1.3 The information will help ICAO to monitor the implementation of the new multi-crew pilot licence.

1.4 Guidance material regarding the form is provided below. The guidance contains a grading scale, reason codes and suggested performance criteria for the specific phases of flight. The grading scale is considered necessary for data analysis, while the reason codes will identify areas where additional guidance material may need to be developed. Each phase of flight is linked to one or more specific PANS-TRG MPL competency units.

**2. GUIDANCE MATERIAL**

**2.1 Task grade explanation**

2.1.1 The grading scale is described in the following table:

| <b>GRADE</b> |                                    | <b>CRITERIA</b>   |
|--------------|------------------------------------|---|
| 0            | Incomplete/<br>Unobserved          | The manoeuvre or phase of flight has not been accomplished or is not required.  |
| 1            | Unsatisfactory                     | Major deviations from the prescribed qualification standards occur, that are not recognized or corrected in a timely manner commensurate with safety. Individual or crew performance could result in hull loss or loss of life. |
| 2            | Debrief required<br>(Satisfactory) | Deviations from the prescribed qualification standards occur and are corrected in a timely manner. Individual or crew performance is safe but would be unsatisfactory if diminished by any amount.                              |
| 3            | Standard                           | No deviations occur from the prescribed qualification standards. Individual or crew performance meets expectations.   |
| 4            | Excellent                          | Performance remains well within the prescribed qualification standards. Individual or crew performance is exemplary.  |

## 2.2 Reason codes explanation

2.2.1 A: Airspeed – occurrence of airspeed deviations exceeding the operator’s prescribed limits for the phase of flight and/or inability to maintain a stabilized airspeed within the operator’s prescribed tolerances when a stable airspeed should be maintained.

2.2.2 AC: Aircraft Control – positive aircraft control is not maintained at all times to the operator’s standards and/or aircraft attitude excursion beyond prescribed limits.

2.2.3 AL: Altitude – occurrence of altitude deviations exceeding the operator’s prescribed limits for the phase of flight.

2.2.4 AM: Automation – inability to use the automation systems to the level required in the operator manuals/automation anomalies are not effectively captured.

2.2.5 E: Execution – incorrect execution of a manoeuvre, exceeding prescribed limits or in contradiction with the instructions of the operator’s manuals.

2.2.6 H: Heading – occurrence of heading deviations exceeding the operator’s prescribed limits for the phase of flight.

2.2.7 K: Knowledge – lack of required aeronautical knowledge.

2.2.8 P: Procedure – incorrect procedure applied (checklist, approach, etc.).

2.2.9 S: SOP<sup>19</sup> – non-compliance with the operator SOP.

2.2.10 R: Radio Communication – clearances are not understood or not accurately read back/not using standard phraseology.

2.2.11 C: Communications – failure to communicate and acknowledge plans and decisions; poor crosstalk, flow of information is not fluid.

2.2.12 D: Decision Making – decisions are not made, not analyzed or not openly verified. An example would be inappropriate continuation of an instrument approach below landing minimums.

2.2.13 T: Teamwork – inability to ensure team coordination when executing required tasks. E.g.: hesitation in making queries and in speaking up; automation setup not briefed to other crew members.

2.2.14 W: Workload Management/Planning Skills – inadequacy of workload management/planning skills. Examples include attempting to accomplish certain tasks while engaged as the pilot flying, failing to properly monitor an assigned task, poor approach planning or failure to plan for any contingency, such as a non-normal or emergency situation.

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<sup>19</sup> Operator standard operating procedures

### 3. PHASES OF FLIGHT CRITERIA

#### 3.1 General

3.1.1 Compliance with SOP, including checklist usage and standard callouts should apply to all phases of flight. Guidance on the competency units are contained in PANS-TRG, Appendix 2 to Chapter 3 for all phases of flight. The competency units should be demonstrated while piloting as PF<sup>20</sup> and as PNF unless the function has no impact on performance. Suggested ATC communications criteria are provided as well in 3.10.

#### 3.2 Ground and pre-flight operations

##### 3.3 Take-off operations

##### 3.4 Climb operations

##### 3.5 Cruise operations

##### 3.6 Descent operations

##### 3.7 Approach operations

##### 3.8 Landing operations

##### 3.9 After-landing and post-flight operations

#### 3.10 ATC communications

3.10.1 Ability to transmit messages clearly and intelligibly in English or in the language used for radiotelephony communications.

3.10.2 Use of standard phraseology, as contained in the *Procedures for Air Navigation Services — Air Traffic Management* (Doc 4444).

3.10.3 Ability to understand and accurately read-back ATC clearances in English or the language used for radiotelephony communications, without excessive need for repetition.

3.10.4 Ability to communicate effectively in any unusual/non-standard event requiring ATC involvement (if applicable).

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<sup>20</sup> Pilot flying and pilot not flying (also known as pilot monitoring).

4. **MPL LINE CHECK - EVALUATION FORM (2 PAGES)**

| <b>MPL LINE CHECK – ICAO EVALUATION FORM</b>  |  |   |                                     |  |
|---|--|---|-------------------------------------|--|
| Operator <sup>i</sup> : _____   |  | Aircraft Type <sup>ii</sup> : _____   |                                     | License: <input type="checkbox"/> MPL; <input type="checkbox"/> ATPL/CPL |
| Line Check <sup>iii</sup> : <input type="checkbox"/> Initial; <input type="checkbox"/> Second; <input type="checkbox"/> Repeat after failure                        |  |   | State <sup>iv</sup> : _____         |  |
| Overall Grade: <input type="checkbox"/> Satisfactory; <input type="checkbox"/> Unsatisfactory   |  |   | MPL Graduate # <sup>v</sup> : _____ |  |
| Leg <sup>vi</sup> 1: From _____<br>To _____   |  | Leg 2: From _____<br>To _____   |                                     | ATO <sup>vii</sup> : _____   |
| <b>Task Grade:</b><br>0. Incomplete/Unobserved<br>1. Unsatisfactory<br>2. Debrief required<br>3. Standard<br>4. Excellent<br><i>Grade all activities performed.</i> |  | <b>Reason Codes:</b><br>A: Airspeed<br>AM: Automation<br>E: Execution<br>H: Heading<br>K: Knowledge<br>P: Procedure<br>S: SOP <sup>viii</sup><br>R: Radio Communication<br>C: Communications<br>D: Decision Making<br>T: Teamwork<br>W: Workload Management / Planning Skills |                                     |  |
| Enter one reason code for all grades 1 or 2   |  |   |                                     |  |
| TASK / PHASE OF FLIGHT  | Leg 1 <sup>ix</sup><br><input type="checkbox"/> PF/ <input type="checkbox"/> PNF | Leg 2 <sup>ix</sup><br><input type="checkbox"/> PF/ <input type="checkbox"/> PNF  | Reason Code                         | Comments   |
| <b>AIRCRAFT GROUND AND PRE-FLIGHT OPERATIONS</b>  |  |   |                                     |  |
| 1 Flight Preparation  |  |   |                                     |  |
| 2 Briefings   |  |   |                                     |  |
| 3 Starting Engines  |  |   |                                     |  |
| 4 Taxi Operations   |  |   |                                     |  |
| <b>TAKE-OFF</b>   |  |   |                                     |  |
| 1 Pretake-off/Line-up   |  |   |                                     |  |
| 2 Take-off Roll   |  |   |                                     |  |
| 3 Rotation/Lift-off   |  |   |                                     |  |
| <b>CLIMB</b>  |  |   |                                     |  |
| 1 Relevant Checklists   |  |   |                                     |  |
| 2 Airspeed Control  |  |   |                                     |  |
| 3 Departure Procedure   |  |   |                                     |  |
| <b>CRUISE</b>   |  |   |                                     |  |
| 1 Monitor flt progress  |  |   |                                     |  |
| 2 FMS/Navigation  |  |   |                                     |  |
| <b>DESCENT</b>  |  |   |                                     |  |
| 1 Descent Planning  |  |   |                                     |  |
| 2 Checklists & Descent Profile/Speed  |  |   |                                     |  |
| 3 Holding (if appl)   |  |   |                                     |  |
| <b>APPROACH</b>   |  |   |                                     |  |
| 1 Approach Briefing   |  |   |                                     |  |
| 2 Precision App   |  |   |                                     |  |
| 3 Non-Precision App   |  |   |                                     |  |
| 4 Visual App  |  |   |                                     |  |
| <b>LANDING</b>  |  |   |                                     |  |
| 1 Flare/Touchdown   |  |   |                                     |  |
| 2 Normal Landing  |  |   |                                     |  |
| 3 Crosswind Landing   |  |   |                                     |  |

