Federal Aviation Administration
Aviation Rulemaking Advisory Committee

Training and Qualification Issue Area
Licensing Harmonization Working Group

Task 1 – Benefits of Licensing Harmonization

Task Assignment

[Federal Register: November 3, 1997 (Volume 62, Number 212)]
[Notices]
[Page 59382-59383]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Training and Qualifications Issues--New Task

AGENCY: Federal Aviation Administration, (**FAA**), DOT.

ACTION: Notice of new task assignments for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: Notice is given of new tasks assigned to and accepted by the Aviation Rulemaking Advisory Committee (ARAC). This notice informs the public of the activities of ARAC.

FOR FURTHER INFORMATION CONTACT:
Tom Toula, Federal Aviation Administration, Flight Standards Service, AFS-210, 800 Independence Avenue, SW., Washington, DC 20591; phone (202) 267-3729; fax (202) 267-5229.

SUPPLEMENTARY INFORMATION:

Background

The **FAA** has established an Aviation Rulemaking Advisory Committee to provide advice and recommendations to the **FAA** Administrator, through the Associate Administrator for Regulation and Certification, on the full range of the **FAA**'s rulemaking activities with respect to aviation-related issues. This includes obtaining advice and recommendations on the **FAA**'s commitment to harmonize its Federal Aviation Regulations (FAR) and practices with its trading partners in Europe and Canada.

One area ARAC deals with is training and qualifications issues. These issues involve training and qualification of air carrier crewmembers and other air transport employees.

The Tasks

This notice is to inform the public that the **FAA** has asked ARAC to provide advice and recommendation on the following harmonization tasks:

Task 1. Determine the benefits of licensing harmonization.

Task 2. Define criteria for Federal Aviation Administration (**FAA**) conversion of Joint Aviation Authorities (JAA) issued licenses, and for JAA conversion of **FAA** issued licenses. Consider only the Airline Transport Pilot license, except where that license might convert to only a Commercial pilot license. Include a review of type and class

ratings and instructor ratings and qualifications, as and if necessary.

Task 3. Develop a recommendation, with justification, on whether the product (i.e., a specific level of license or certificate) should be harmonized, or the process (i.e., the curriculum, prerequisite experience, length of training, etc.) should be harmonized.

(a) If recommending that the product should be harmonized, develop a matrix of essential requirements for the **FAA** and JAA to impose on license holders of the other in order to convert licenses.

(b) If recommending that the process should be harmonized, develop a matrix of specific differences and how those differences should be equalized.

(c) Make specific recommendations about which **FAA** regulations or Joint Aviation Requirements should be changed to achieve the recommended actions. Any recommendations requiring changes to Title 14 of the Code of Federal Regulations must be forwarded to the **FAA** for consideration of rulemaking priority, resource allocation, and additional tasking to ARAC to develop rulemaking, as appropriate.

Task 4. Review the current standards of 14 CFR sections 61.75 and 61.77 as part of the overall task. In light of this review, recommend appropriate guidance material that could later be incorporated into advisory material or an appendix to 14 CFR part 61 that contains the criteria developed in task 3 (a) or (b) above.

The **FAA** expects ARAC to complete these tasks within 12 months and submit a report through ARAC to the **FAA** and to the JAA.

ARAC Acceptance of Tasks

ARAC has accepted the tasks and has chosen to establish a new Licensing Harmonization Working Group. The working group will serve as staff to

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ARAC to assist ARAC in the analysis of the assigned task. Working group recommendations must be reviewed and approved by ARAC. If ARAC accepts the working group's recommendations, it forwards them to the **FAA** as ARAC recommendations.

Working Group Activity

As is the case with all harmonization working groups, meetings of the Licensing Harmonization Working Group will be held alternatively between the United States and Europe. Tentatively, the next two meetings will be held in Washington, DC, in January 1998 and in Hoofddorp, The Netherlands, in February 1998.

The Licensing Harmonization Working Group is expected to comply with the procedures adopted by ARAC. As part of the procedures, the working group is expected to:

1. Recommend to ARAC a work plan for completion of the tasks, including the rationale supporting such a plan, for consideration at the meeting of ARAC to consider Training and Qualifications Issues held following publication of this notice.

2. Give a detailed conceptual presentation to ARAC of the proposed recommendations, prior to proceeding with the work stated in item 3 below.

3. Provide a status report at each meeting of ARAC held to consider Training and Qualifications Issues.

Participation in the Working Group

The Licensing Harmonization Working Group is composed of experts having an interest in the assigned task. A working group member need not be a representative of a member of the full committee.

An individual who has expertise in the subject matter and wishes to become a member of the working group should write to the person listed under the caption FOR FURTHER INFORMATION CONTACT expressing that desire, describing his or her interest in the tasks, and stating the expertise he or she would bring to the working group. The request will be reviewed by the assistant chair, the assistant executive director, and the working group chair, and the individual will be advised whether or not the request can be accommodated. Requests to participate on the Licensing Harmonization Working Group should be submitted no later than November 28, 1997. To the extent possible, the composition of the working group will be balanced among the aviation interests selected to participate.

The Secretary of Transportation has determined that the formation and use of ARAC are necessary and in the public interest in connection with the performance of duties imposed on the **FAA** by law.

Meetings of ARAC will be open to the public. Meetings of the Licensing Harmonization Working Group will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on October 29, 1997.

Thomas K. Toula,

Assistant Executive Director for Training and Qualifications Issues, Aviation Rulemaking Advisory Committee.

[FR Doc. 97-29016 Filed 10-31-97; 8:45 am]
BILLING CODE 4910-13-M

[Federal Register: December 17, 1997 (Volume 62, Number 242)]
[Notices]
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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

Aviation Rulemaking Advisory Committee; Training and Qualifications Issues--Revised Task

AGENCY: Federal Aviation Administration (**FAA**), DOT.

ACTION: Notice of revised task assignments for the Aviation Rulemaking Advisory Committee (ARAC).

SUMMARY: Notice is given of revised tasks assigned to and accepted by the Aviation Rulemaking Advisory Committee (ARAC). This notice informs the public of the activities of ARAC.

FOR FURTHER INFORMATION CONTACT:
Tom Toula, Federal Aviation Administration, Flight Standards Service, AFS-210, 800 Independence Avenue, SW., Washington, DC 20591; phone (202) 267-3729; fax (202) 267-5229.

SUPPLEMENTARY INFORMATION:

Background

The **FAA** has established an Aviation Rulemaking Advisory Committee to provide advice and recommendations to the **FAA** Administrator, through the Associate Administrator for Regulation and Certification, on the full range of the **FAA**'s rulemaking activities with respect to aviation-related issues. This includes obtaining advice and recommendations on the **FAA**'s commitment to harmonize its Federal Aviation Regulations (FAR) and practices with its trading partners in Europe and Canada.

One area ARAC deals with is training and qualifications issues. These issues involve training and qualification of air carrier crewmembers and other air transport employees.

The Tasks

This notice is to inform the public that the **FAA** has asked ARAC to provide advice and recommendation on the following revised harmonization tasks. The original tasks were published in the Federal Register on November 3, 1997 (62 FR 59382).

Task 1. Determine the benefits of licensing harmonization.

Task 2. Define criteria for Federal Aviation Administration (**FAA**) conversion of Joint Aviation Authorities (JAA) issued licenses, and for

JAA conversion of **FAA** issued licenses. Consider only the Airline Transport Pilot (ATP) license, except where that license might convert to only a Commercial pilot license.

Task 3. Develop a recommendation, with justification, on whether the product (i.e., a specific level of license or certificate) should be harmonized, or the process (i.e., the curriculum, prerequisite experience, length of training, etc.) should be harmonized.

(a) If recommending that the product should be harmonized, develop a matrix of essential requirements for the **FAA** and JAA to impose on license holders of the other in order to convert licenses.

(b) If recommending that the process should be harmonized, develop a matrix of specific differences and how those differences should be equalized.

(c) Make specific recommendations about which **FAA** regulations or Joint Aviation Requirements should be changed to achieve the recommended actions. Any recommendations requiring changes to Title 14 of Code of Federal Regulations must be forwarded to the **FAA** for consideration of rulemaking priority, resource allocation, and additional tasking to ARAC to develop rulemaking, as appropriate.

Task 4. Review the current standards of 14 CFR sections 61.75 and 61.77 as part of the overall task. In light of this review, recommend appropriate guidance material that could later be incorporated into advisory material or an appendix to 14 CFR part 61 that

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contains the criteria developed in task 3 (a) or (b) above.

The **FAA** expects ARAC to complete these tasks within 12 months and submit a report through ARAC to the **FAA** and to the JAA.

ARAC Acceptance of Tasks

ARAC has accepted the tasks and has chosen to establish a new Licensing Harmonization Working Group. The working group will serve as staff to ARAC to assist ARAC in the analysis of the assigned task. Working group recommendations must be reviewed and approved by ARAC. If ARAC accepts the working group's recommendations, it forwards them to the **FAA** as ARAC recommendations.

Working Group Activity

As is the case with all harmonization working groups, meetings of the Licensing Harmonization Working Group will be held alternately between the United States and Europe. Tentatively, the next two meetings will be held in Washington, DC, in January 1998 and in Hoofddorp, The Netherlands, in February 1998.

The Licensing Harmonization Working Group is expected to comply with the procedures adopted by ARAC. As part of the procedures, the working group is expected to:

1. Recommend to ARAC a work plan for completion of the tasks, including the rationale supporting such a plan, for consideration at the meeting of ARAC to consider Training and Qualifications Issues held following publication of this notice.

2. Give a detailed conceptual presentation to ARAC of the proposed recommendations, prior to proceeding with the work stated in item 3 below.

3. Provide a status report at each meeting of ARAC held to consider

Training and Qualifications Issues.

Participation in the Working Group

The Licensing Harmonization Working Group is composed of experts having an interest in the assigned task. A working group member need not be a representative of a member of the full committee.

The Secretary of Transportation has determined that the formation and use of ARAC are necessary and in the public interest in connection with the performance of duties imposed on the **FAA** by law.

Meetings of ARAC will be open to the public. Meetings of the Licensing Harmonization Working Group will not be open to the public, except to the extent that individuals with an interest and expertise are selected to participate. No public announcement of working group meetings will be made.

Issued in Washington, DC, on December 12, 1997.

Thomas K. Toula,

Assistant Executive Director for Training and Qualifications Issues, Aviation Rulemaking Advisory Committee.

[FR Doc. 97-32883 Filed 12-16-97; 8:45 am]
BILLING CODE 4910-13-M

Recommendation Letter

2/2/00

Mr. Thomas E. McSweeny
Associate Administrator for
Regulation and Certification, AVR-1
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Dear Mr. McSweeny:

Attached is a report that the Licensing Harmonization Working Group submitted to the Aviation Rulemaking Advisory Committee (ARAC) on Training and Qualification Issues.

On December 14, 1999, the ARAC held a meeting and voted on the recommendations contained in the report. Seven members voted to accept all of the working group's recommendations, while seven members voted to forward the working group's report to the Federal Aviation Administration for its information without accepting or rejecting specific recommendations. The specific voting is detailed in the official minutes of the meeting.

I am forwarding the report to you for appropriate FAA action and ask that you take note of the ARAC vote when determining the appropriate action.

Sincerely,

/S/

Walter S. Coleman
Assistant Chair for Training
and Qualifications Issues

Attachment

Acknowledgement Letter

U.S. Department
of Transportation
**Federal Aviation
Administration**

800 Independence Ave., S.W.
Washington, D.C. 20591

MAR 29 2000

Mr. Walter S. Coleman
President
Regional Airline Association
1200 19th Street, NW
Washington, DC 20036

recommendation letter - not available 59382

Dear Mr. Coleman:

Project # AFS-98-031-A 032-A 033-A 034-A

Thank you for your February 2 letter forwarding the Aviation Rulemaking Advisory Committee (ARAC) recommendation regarding the Licensing Harmonization Working Group's report. Training + QUAL ISSUES

The FAA will take the ARAC's vote into consideration when considering what action to take on licensing harmonization.

I would like to thank the aviation community for its commitment to ARAC and its expenditure of resources in the development of this recommendation. More specifically, I would like to thank the Licensing Harmonization Working Group for their commitment to the ARAC process.

Sincerely,

Thomas E. McSweeny

Thomas E. McSweeny
Associate Administrator for
Regulation and Certification

Recommendation

FEDERAL AVIATION ADMINISTRATION
AND
JOINT AVIATION AUTHORITY
(FAA/JAA)
HARMONIZATION WORK PROGRAM ACTIVITY

AVIATION RULEMAKING ADVISORY COMMITTEE
(ARAC)
LICENSING HARMONIZATION WORKING GROUP
(LHWG)

REPORT

22 JULY 1999

Background:

The Aviation Rulemaking Advisory Committee (ARAC) Licensing Harmonization Working Group (LHWG) was formed based upon the recommendation of the 13th Annual FAA/JAA International Harmonization Conference held in June 1996. The proposed Terms of Reference (TOR) for the working group were developed jointly by the FAA and JAA. A joint organizational meeting was held in October 1997 while ARAC considered the TOR. ARAC voted to accept the TOR in December 1997, but narrowed the scope of the TOR from consideration of all levels of pilot certificates/licenses (private-PVT, commercial-COMM, and air transport-ATP) to consider only the ATP license/certificate. In October 1998, the TOR was revised to include consideration of instances where an ATP might convert to a COMM license/certificate.

The first meeting of all participating members of the working group was held in February 1998. Two additional meetings were held in 1998 and one meeting was held in February 1999. Immediately prior to the February 1999 meeting, the FAA advised the U.S. co-chairman of the working group that consistent with the one-year time limit specified in the TOR, that no further meetings of the working group were required. It was requested that the results of the working group meetings be reported to the regulatory authorities. This report is the response to that request.

Working Group Membership/ Participation:

The following organizations, in addition to the FAA and JAA representatives, requested and received member or observer status on the LHWG:

Members:	Aircraft Owners and Pilots Association	AOPA
	Air Line Pilots Association	ALPA
	*Air Transport Association	ATA
	Allied Pilots Association	APA
	Association of European Manufacturers Association	AECMA
	Association of Flight Attendants	AFA
	Boeing	
	DGAC-France	DGAC
	European Business Aircraft Association	EBAA
	European Cockpit Association	ECA
	Helicopters Association International	HAI
	International Federation of Air Line Dispatchers Association.	IFALDA
	International Federation of Air Line Pilots Assn.	IFALPA
	*International Transportation Workers Federation	ITF

	Luftfahrt Bundesamt - Germany	LBA
	National Business Aircraft Association	NBAA
	*Regional Aircraft Association	RAA
	United Kingdom Civil Aviation Authority	UK CAA
	Universal Pilot Application Service	UPAS
	University Aviation Association	UAA
Observer:	Transport Canada	TC

Note: * indicates an organization that requested participation in the working group but did not attend the working group meetings.

Terms of Reference (TOR):

The LHWG Terms of Reference are included as Attachment 1.

Benefits Of Harmonization:

In response to the working group objectives specified in the TOR, the following were determined to be the benefits of licensing harmonization:

Provides one internationally recognized standard for professional level licensing qualification requirements.

Removes licensing barriers allowing increased manning flexibility in the code sharing crew exchange environment.

Common professional license resulting in an economic benefit to aircraft manufacturer utilizing training and demonstration pilots.

Flight Training Organizations both in Europe and the United States can train to the same requirements and qualification standards.

Increases pilot mobility with resultant increased job opportunities.

Increased professional licensing standard that more closely equates to current airline industry knowledge and experience requirements.

Summary of Working Group Discussions and Conclusions:

The FAA requirements for pilot certification are contained in 14 CFR part 61. The JAA requirements for pilot licensing are contained in Joint Aviation

Requirements Flight Crew Licensing (JAR-FCL). There was agreement within the working group that there are significant difference between the FAA and JAA licensing requirements that reflect fundamental differences underlying the approach to pilot training in the U.S. and in Europe. The JAR-FCL has two training systems for acquiring licenses(s) and ratings(s): an integrated training program, and a step by step modular training program. Both JAA training systems emphasize theoretical knowledge and skill testing with instruction and training. The FAA emphasizes skill testing, permitting more individual choice in the acquisition of the knowledge and training required for certificate issuance.

The elements of the FAA and JAA licensing requirements differ in scope and degree. The JAR air transport pilot license (ATPL) is designed for use by pilots engaged in air carrier operations regulated by JAR OPS 1 requirements including training in multi-crew, multi-engine aircraft. The issuance of the FAA air transport pilot certificate (ATPC) is not limited to pilots in air carrier operations under 14 CFR part 121. Consequently it is possible for a pilot to obtain an FAA ATPC by completing the flight hour requirement solely in a single engine, single-pilot aircraft. An FAA ATPC obtained in this manner would not equate to a JAA ATPL. A comparison of the current requirements or initial issuance of the FAA ATPC and the JAA ATPL are included as attachment 2.

It was agreed that the ATPC and ATPL as used in air carrier operations are both professional level licenses and as such the evaluation methods and criteria should be held to the highest of standards. There was also a recognition that the experience level of the average new hire pilot employed by a U.S. air carrier operating under 14 CFR part 121 is significantly higher than his European counterpart trained under the JAA ATPL integrated program. The JAA ATPL integrated training program is utilized by a number of European air carriers operating under JAR OPS 1. The JAA ATPL integrated training course completed by pilots hired by European air carriers is focused on multi-pilot aircraft flying including extensive theoretical knowledge.

Given the differences between the scope and degree of the ATPC and ATPL, the issue became one of how to compare and equate the JAA ATP License (ATPL) formalized integrated theoretical knowledge and testing requirements to the FAA building block modular approach, building from the private, then the commercial certificates, and the instrument ratings necessary to achieve a FAA ATPC. It was determined that existing U.S. laws and conventions prohibit the mutual recognition of airman certificates and licenses. As a result, the working group agreed to develop a validation proposal for the FAA ATPC/JAA ATPL as an interim measure. To complete the process of licensing harmonization required for 14 CFR part 121 and JAR-OPS 1 operations, the regulatory authorities need to define and implement the necessary regulatory changes to allow for the mutual acceptance/recognition of professional level airman's licenses.

The practice of pilot certificate/license validation and conversion are considerably different in the U.S. and European systems. Under the European system, the pilot license validation and conversion are treated essentially the same, as both actions result in basically the same privileges for the license holder. The major difference is in the duration of the resulting license. The validation process is for a fixed time period, usually several years and the conversion process once completed has no time limits. In the U.S. system, the pilot licenses/certificates of any level will only convert to an FAA private pilot certificate. The U.S. technically does not have a validation system for pilot licenses/certificates, but provides for the issuance of a special purpose authorization for flying U.S. registered aircraft in air carrier operations.

In developing validation criteria, the discussions focused on the JAA ATPL requirement for 750 hours of theoretical knowledge training for which there is no parallel FAA requirement for the issuance of the ATPC, and on the level and type of flight experience of the average U.S. pilot in air carrier operations over and above the flight hours required for the initial issuance of the ATPC. Statistics were presented that showed the current FAA standards for the ATPC do not represent the experience or qualifications of even the most junior airline captain. The LHWG reconciled the theoretical knowledge requirement by requiring additional flight hours of the U.S. ATPC in specific types of multi-pilot operations when validating to the JAR ATPL. The proposed increased flight hours required for validation to the JAR ATPL, above the current ATPC requirements, was proposed to align licensing requirements more closely with current experience levels of 14 CFR part 121 commercial air carrier captains. It was noted that specifically within the United States, the commercial aviation safety record is in large part the result of airline hiring standards and training programs, not the existing regulatory licensing requirements.

At the request of the working group, a UAA member, Western Michigan University School of Aviation Sciences, which holds pilot training certification from both the FAA and the UK CAA, evaluated knowledge and testing requirements for the ATPC and ATPL. The study involved an equivalency evaluation between the JAA ATPL theoretical knowledge and testing requirements, and the FAA knowledge and testing requirements for the modular (private license, commercial license, instrument rating, and airline transport pilot certificate) programs. The results of that evaluation indicate that the differences in theoretical knowledge and testing requirements may not be as significant as once thought. The LHWG requested, and the FAA and JAA agreed, to use the UAA study as the basis to complete an FAA/JAA definitive analysis, to be conducted by FAA and JAA written and practical testing experts, on the knowledge and practical testing requirements for all levels of pilot licenses and certificates. The UAA study is included in this report as Attachment 3.

The LHWG developed a draft table containing the criteria for validation of the FAA ATPC and JAA ATPL for pilots in command engaged in air carrier

operations. This draft table is included as attachment 4. The LHWG was not allowed the time to complete consensus discussions on each of the issues contained in the table. European representatives expressed concern that the additional flight hour requirements for validation from FAA ATPC to JAA ATPL were still too low, thereby giving the U.S. ATPC holder more favorable treatment than JAA member states. The issue of medical requirements was considered beyond the purview and expertise of the LHWG. The difference in the maximum age requirements for the ATPC/ATPL was discussed. The opinion of several members of the LHWG is that the current maximum age limitations(age 60 for the FAA ATPC and age 65 for the JAA ATPL) are inconsistent and should be standardized.

The aircraft manufacturers have a need for instructor pilots to act as crewmembers, instructor pilots, and check airmen for the purpose of supporting the introduction into FAA 14 CFR Part 121 and JAR-OPS 1 revenue service of newly manufactured aircraft. Additionally, there is a need for manufacturer's test pilots to act as pilot-in-command of test and demonstration flights of aircraft in commercial service. These type of operations are currently limited by existing license acceptance requirements and were not addressed within the LHWG recommendations.

With the potential for flight crew interchange, a need also exists to also address and harmonize the requirements for the air carrier first officers. Crew interchange cannot take place unless both cockpit members of a dual crew cockpit have licenses recognized by both licensing authorities. As a result, the TOR tasking was revised and the working group initiated the evaluation of the Commercial Pilots License with instrument rating currently required for air carrier first officers. Due to the time constraints imposed by the FAA and additional data required, the working group was unable to complete this task. Consensus was reached on the issue of requiring air carrier first officers to be type rated in the aircraft flown and having successfully completed the ATPC/ATPL written examination(This is an existing requirement within JAR FCL).

There is industry and organization concern that the TOR tasking has not been completed and unresolved issues remain. Both industry and organizational groups desire to be included in the continued licensing harmonization process.

Recommendations:

Note: Due to the imposed time constraints, consensus discussions were extremely limited. At the request of the FAA and JAA representatives to the working group, all recommendations proposed by working group members are included for consideration.

1. Utilizing the UAA (WMU) study, included as attachment 3, as basis for further evaluation, the authorities complete a review of the FAA and JAA

knowledge and testing requirements and develop a common standard. Use the results of this evaluation to revise existing knowledge and testing standards for all levels of licenses and develop a common standard. It is intended that the common standard be the basis from which the FAA and JAA develop individual independent requirements for both knowledge and testing.

2. The Initial Validation Table for ATPC/ATPL included as attachment 4 be considered by the authorities, along with results of the FAA/JAA knowledge and practical test comparisons, for all levels of pilot licenses and certificates in developing final pilot license and certification acceptance criteria.

3. The respective FAA and JAA written knowledge tests for a professional level license (ATPC/ATPL) should not be in the public domain.

4. Establish a professional level certification in addition to the existing FAA licensing certification structure reflecting the recommended experience and knowledge requirements. This certification would only be required of pilots-in–command of passenger carrying aircraft operating under FAA 14 CFR part 121. (This type requirement contained in JAR-FCL)

5. The requirements for a FAA 14 CFR part 121 or JAR OPS1 air carrier first officer should include at a minimum, a type rating for the aircraft being operated and successful completion of the ATPC/ATPL written examination. (This requirement contained in current JAR-FCL)

6. The aircraft manufacturers jointly develop and propose to the FAA and JAA a solution to meet their unique flight crew licensing requirements.

7. Include industry and organization participation in the continuing FAA/JAA licensing harmonization effort.

ATTACHMENT 1

HARMONIZATION TERMS OF REFERENCE (TOR)

FAR SECTION NUMBERS: 61.75, 61.77; Subparts A, B, F and G of Part 61 and selected sections of Part 141, 142 and 121.

JAR SECTION NUMBERS: JAR FCL (Aeroplane), Part 1, Subparts A, C, D, E, F, G, Hand J

NPRM/NPA NUMBER:
ADVISORY MATERIAL NUMBER: TBD

TITLE OF INITIATIVE: Licensing Harmonization

STATEMENT OF ISSUE: The Licensing Harmonization Working Group objectives are to:

1. Determine the benefits of licensing harmonization;

2. Define criteria for Federal Aviation Administration (FAA) acceptance/validation/conversion of Joint Aviation Authorities (JAA) issued licenses, and for JAA acceptance/validation/conversion of FAA issued licenses. Consider the Airline Transport Pilot license, including instances in which that license might convert to a Commercial pilot license. The objectives will be:

   (a) The completion of recommendations for the harmonization of the Airman Certificates/Pilot Licenses required for 14 CFR part 121/JAR-OPS 1 Air Carrier Operations.

   (b) The completion of recommendations for the harmonization of the ATPL for privileges other than those required under JAR-OPS 1/14 CFR part 121.

3. Develop a recommendation, with justification, on whether the product (i.e., a specific level of license or certificate) should be harmonized, or the process (i.e., the curriculum, prerequisite experience, length of training, etc.) should be harmonized.

   (a) If recommending that the product should be harmonized, develop a matrix of essential requirements for the FAA and JAA to impose on license holders of the other in order to convert licenses.

   (b) If recommending that the process should be harmonized, develop a matrix of specific differences and how those differences should be equalized.

(c) Make specific recommendations about which FAA regulations or Joint Aviation Requirements should be changed to achieve the recommended actions. Any recommendations requiring changes to the FAR must be forwarded to the FAA for consideration of rulemaking priority, resource allocation, and additional tasking to ARAC to develop rulemaking, as appropriate.

4. Review the current standards of §§ 61.75 and 61.77 as part of the overall task. In light of this review, recommend appropriate guidance material that could later be incorporated into advisory material or an appendix to Part 61 that contains the criteria developed in task 3(a) or (b) above.

5. Complete items 1. through 4. within 12 months and submit a report through ARAC to the FAA and to the JAA.

HWG AFFILIATIONS:

CONTACTS:

FAA: Warren Robbins	Tel: 1-202-267-3842 Fax: 1-202-267-5094 warren.robbins@faa.gov
JAA: Anke Mengelberg-Thissen	Tel: 31 23 567-9733 Fax: 31 23 562-1714 Amtlicdir@jaa.nl
U.S. Co-chairperson: James Curland	Tel: 708-205-1846 Fax: jcurland@aol.com

European Co-chairperson: Anke Mengelberg-Thissen

STATUS: This harmonization TOR for Licensing is being considered partly in response to conclusions reached at the 13th Annual FAA/JAA Harmonization Conference. The task will be accomplished by a new ARAC HWG composed of licensing specialists from FAA, JAA, and U.S. and European industry organizations from associated disciplines. The FAA and JAA contacts on the HWG would submit progress reports to the Operations, Maintenance, and Licensing Harmonization Group (OHG) on a quarterly basis, in addition to status reports otherwise required by ARAC.
This TOR would be an appropriate task for the ARAC under Training and Qualifications Issues.

Date prepared/approved by HMT: 23 January 1997

Revised: 4/8/97 to reflect comments from the FAA's Office of Rulemaking; further authority revision on 7/15/97; 8/27/97; 12/5/97; number 2 revised 1/25/99 to reflect comments from working group and ARAC revision approval on 10/20/98; also, contact names/numbers updated on 1/25/99.

AIRLINE TRANSPORT PILOT-AEROPLANE

(*To Obtain an ATP License/Certificate. This is an abbreviated chart , for details see relevant requirements.)

JAR-FCL Subpart G and Subpart D	*FAR 61, Subpart*

Experience

	Commercial + instrument rating
1500 hours total flight time	1500 hours flight time as a pilot
500 hours in multipilot operations on JAR 25 or JAR 23 commuter category aeroplanes	
	600 hours cross country
250 hours pilot in command (pic) or 150 pic supervised	250 hours pic, or 250 copilot supervised by pic- aeroplane
200 hours cross country of which 100 pic/pic supervised	100 hours cross country pic or supervised co-pilot, and 25 night pic or supervised copilot.
75 hours instrument time of which 30 hours may be simulator time	75 hours actual or simulated instrument, at least 50 hours in actual flight.
100 hours night	100 hours night
100 hours may be simulator time of the total flight time.	

Theoretical Knowledge

	FAR 61.163 Airplane rating: Aeronautical knowledge
Knowledge training: on integrated course- 750 hrs modular course - 650 hrs (at least PPL required). Correspondence course approved by the Authority. Exam hours - 20hrs.30min	Instruction required (Appendix Completion of knowledge test.

Flight Instruction

Flight training for JAR 25/23 commuter category skill test.	FAR 61.157(f) completed ground and flight training
Holder of Commercial pilot license and multi-engine instrument rating.	Commercial certificate and instrument rating
Multi-crew Co-ordination (MCC). Practical Training hours: 15 hours on integrated course 30 hours on modular route	Crew Resource Management (CRM). CRM competency evaluated during practical test.

Skill

	FAR 61.157 Airplane rating: Aeronautical skill
Skill test on JAR 25 or JAR 23 commuter category including MCC	Airline Transport Pilot - Practical Test Standards. FAA-S-8081-6B

ATTACHMENT 3

FAA/JAA ATP(A) Theoretical Knowledge Validation Requirements

Introduction.
The following document is intended to examine the body of theoretical knowledge carried by the FAA ATP(A) and JAA ATP(A) license-holders, such that areas of difference may be identified and addressed. In order to compare these bodies of theoretical knowledge effectively, it is important to examine the philosophy behind each licensing system.

Licensing Philosophies.
Under the JAA ATP(A) Integrated course, it is possible for an individual to sit the ATP(A) Theoretical Knowledge examinations without having entered any prior licensing examinations or having gained any lower level of license. As such, the syllabus/examinations prepare the individual for any aeroplane type and job of work, from Aerial Work in a Cessna 172 to Public Transport in an Airbus A340 or Concorde. Theoretical knowledge requirements progress from subsonic aerodynamics, the piston engine and elementary *generic* aeroplane/instrumentation/navigation systems to swept-wing, transonic/supersonic aerodynamics, the turbine engine and *generic* complex, electronic, integrated, aeroplane/instrumentation/navigation systems.

Prior to the FAA ATP(A) examinations, the individual will already have gained a Private Certificate, Commercial Certificate and Instrument Rating. As such, the theoretical knowledge requirements prepare the individual for their first aeroplane types and employment (e.g. Flight Instructor), ie. subsonic aerodynamics, the piston engine and elementary *generic* aeroplane/instrumentation/navigation systems. As the individual progresses to more complex aeroplanes, i.e. those requiring a type rating, then the individual would have to learn, and be tested on, the *specific* aeroplane/instrumentation/navigation systems of that type. As such, there is no theoretical knowledge requirement within the "License" for *generic* advanced aeroplane/instrumentation/navigation systems. Instead, the FAA ATP(A) examines that common to the ATP(A) role, i.e. high speed flight and turbine engines, leaving *specific* aeroplane/instrumentation/navigation systems knowledge to the "Type Rating".

Appendices.
Appendix 1 contains a comparison of the body of theoretical knowledge required by each license-holder, i.e. JAA ATP(A) and FAA ATP(A, including Commercial Certificate and Instrument Rating). Appendix 2 contains the Subject Matter Knowledge Codes for the FAA ATP(A) Certificate/Commercial Certificate/Instrument Rating. Appendix 3(A/B) contains the Validation Syllabus for each of the licenses.

Method.
In order to compare the knowledge requirements, the author read the particular documents to which the FAA Subject Matter Knowledge Codes relate, along with various popular ATP/Commercial/Instrument preparatory materials. A comparison was then made between these documents and the Knowledge Objectives of the JAA ATP(A)

resulting in a "Depth of Knowledge" assessment. It must be stressed that this was a purely subjective assessment from the author. The 'Depth of Knowledge" scoring system was from 0 – No Information, to 5 – Information Additional to JAR-FCL 1.

A score of '3' was deemed by the author to be a depth of knowledge whereby the individual with the FAA ATP(A) body of knowledge would probably pass the JAA ATP(A) examination in that subject area without further study. The only exceptions to this were in '010 – Air Law & ATC Procedures' and '070 – Operational Procedures', where the body of knowledge was to similar depths, but it related to sufficiently different airspace and ATC systems that examination should probably take place in these subject areas.

Results.

010 – Air Law & ATC Procedures/070 – Operational Procedures: There are a number of major differences in the way that airspace is allocated, the rules of the air are applied and in the administration of aviation, that examination is these areas would probably be required when validating either the FAA or JAA ATP(A). The individual requiring the validation would not find the study task too onerous as the (ICAO) principles governing each system are broadly similar; it is in the application of the principles that differences emerge.

020 – Aircraft General Knowledge/060 – Navigation: The major differences in these areas relate to the *generic* complex aeroplane/instrumentation/navigation systems requirement of the JAA "Licensing" method, rather than the *specific* complex aeroplane/instrumentation/navigation systems requirement of the FAA "Type Rating" method. The items of interest are advanced Hydraulic/Electrical/Air-Driven/Safety/Flight Control systems, EFIS/FMS/EICAM/EICAS systems and INS/IRS/RNAV systems. Although the FAA ATP(A) seeking JAA validation may have knowledge in these areas, that may be, in the worst case, in a specific older system, e.g. DC8 systems with "conventional" instrumentation/navigation "fits". To that end, unless individual assessments of theoretical knowledge will be made (e.g. for the B747-400 Captain), examination in specific areas relating to advanced complex systems should probably be a JAA requirement. Again, this should not be too onerous a task, as there are excellent reference materials available.

040 – Human Performance & Limitations: The FAA syllabus examines aviation physiology to a sufficient degree, but does not examine aviation psychology in any significant depth. The author suspects that much of this material is "left" to operators as a basis for a CRM course. To this end, this subject area should probably be examined by the JAA; there are excellent reference materials available.

050 – Meteorology: The aviation weather dissemination service in the USA is extremely comprehensive, with the breadth and depth of information such that a JAAATP(A) may find difficulty in interpreting many of the charts (e.g. echo intensity in the Radar Summary Chart). Therefore the FAA should probably examine the JAA ATP(A) in the subject area of Aviation Weather Services; excellent references are available.

Recommendations.

FAA Validation of the JAA ATP(A):

1. An Aviation Operations (FAR/AIM plus Aviation Weather Services) Examination – 2 Hours.

JAA Validation of the FAA ATP(A):

1. An Aviation Operations (Aviation Law [010] plus Operational Procedures [070]) Examination – 1 Hour 30 Minutes.
2. A Transport Category Aircraft Systems (Aircraft General Knowledge [020] plus Navigation [060]) Examination [1] – 2 Hours
3. A Human Factors (040 01, 040 03) Examination[2] – 40 Minutes.

Notes.

1 An exemption from this examination may be considered for the 'transport-experienced', i.e. an individual who has/or has held Type Ratings on an 'older generation' transport category aeroplane AND a 'glass cockpit' transport category aeroplane.

2 An exemption from this examination may be considered for an individual who has attended a certified CRM course, minimum length 2 days.

Conclusion.

In the author's opinion, theoretical knowledge as tested by the validation examinations outlined above, would prepare the JAA ATP(A) operating a B707 for a European transport (cargo) operation, for conversion to the A330 operated by a US transport (passenger) concern, and vice-versa.

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Appendix 1
Comparison of FAA/JAA ATP(A) Theoretical Knowledge Requirements

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
010	**Air Law & ATC Procedure**		**3**
01	International Agreements & Organisations		0
02	Airworthiness of Aircraft	A01, B07, B11	3
03	Nationality and Registration Marks	A01, B07, B11	3
04	Personnel Licencing	A20-26	3
05	Rules of the Air	B08-10, J20	3
06	PANS(Ops)	A01-02, J16-18, J26, J40-41	3
07	Air Traffic Services	A60-61, A64, I11-12, J02, J06, J11, J13-14	3
08	Aeronautical Information Service		0
09	Aerodromes	J03-05, J13	3
10	Facilitation	D20	3
11	Search & Rescue	J22	3
12	Security	C10	3
13	Accident & Incident Investigation	G10-13, J30	3
14	JAR-FCL 1		0

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
020	**Aircraft General Knowledge**		
02101	**Airframe & Systems**		**2**
01	Fuselage	H51, T45	4
02	Cockpit & Cabin Windows	T45	1
03	Wing	H51, T45	4
04	Stabilising Surfaces	H51, T45	4
05	Landing Gear	H51, T45	3
06	Flight Controls	H53, T45	3
07	Hydraulics		0
08	Air-Driven Systems (Piston-Engined Aircraft)		0
09	Air-Driven Systems (Turboprop/Jet)		0
10	Non-Pneumatic De/Anti-ice	T55	3
02102	**Electrics**		**1**
01	DC	H02	1
02	AC	H02, I07	1
03	Semiconductors		0
04	Basic Knowledge of Computers		0
05	Basic Radio Propagation Theory	I07	2
02103	**Powerplant**		
0210301	**Piston Engine**		**3**
01	General	H02, H51, T07	2
02	Lubrication System	H02	2
03	Air Cooling	H02	3
04	Ignition	H02, H51	3
05	Engine Fuel Supply	H02, H51	4
06	Engine Performance	T11	4
07	Power Augmentation Devices	T11	4
08	Fuel	H02, H51	3
09	Mixture	H02, H51	4
10	Propeller	H02, H51	3
11	Engine Handling & Manipulation	H02, H54	1
12	Operational Criteria		0
0210302	**Turbine Engine**		**4**
01	Principles of Operation	T01	4
02	Types of Construction	T01	4
0210303	**Engine Construction**	**T03**	**4**
0210304	**Engine Systems**	**T03**	**4**
0210305	**APU**		**0**
02104	**Emergency Equipment**		**0**

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
020	**Aircraft General Knowledge**		
02201	**Instrumentation**		**2**
01	Air Data Instruments	H03, I04	3
02	Gyroscopic Instruments	H03, I04, K40, L59	3 (INS-1)
03	Magnetic Compass	H03, I04	3
04	Radio Altimeter	I04	2
05	EFIS		0
06	FMS	J01	1
02202	**Automatic Flight Control System**		**1**
01	Flight Director	I04	1
02	Autopilot	I04	1
03	Flight Envelope Protection		0
04	Yaw Damper		0
05	Automatic Pitch Trim		0
06	Thrust Computation		0
07	Autothrust		0
02203	**Warning & Recording Equipment**		**0**
01	Warnings General		0
02	Altitude Alert System		0
03	GPWS		0
04	TCAS II		0
05	Overspeed Warning		0
06	Stall Warning System		0
07	Flight Data Recorder		0
08	Cockpit Voice Recorder		0
02204	**Powerplant & System Monitoring Insts**		**1**
01	Pressure Gauge	H51	2
02	Temperature Gauge	H51	2
03	RPM Indicator	H51	2
04	Consumption Gauge	H51	2
05	Fuel Gauge	H51	2
06	Torque Meter	H51	2
07	Flight Hour Meter		0
08	Vibration Monitoring		0
09	Remote (Signal) Transmission System	H53	1
10	Electronic Displays		0

Depth of Knowledge Indicators:
0 - No Information

1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
030	**Flight Performance & Planning**		
031	**Mass & Balance**		**4**
01	Introduction	H10-11	4
02	Loading	H13-16	4
03	CG	H12	4
032	**Performance**		**4**
01	Class B – Single Engine	H04, H11, V05	4
02	Class B – Twin	H04, H66, V04	4
03	Class A	W06-07, W12-14, L50	4
033	**Flight Planning**		**3**
01	VFR Cross-Country Flights	H06-07, H61	3
02	ICAO ATC Flight Plan		0
03	Practical Flight planning - VFR	H06-07, H61	4
04	IFR (Airways) Flight Planning	I10-13	3
05	Jet Aeroplane Flight Planning	X07, X09, X15	4
06	Practical Flight Planning - IFR	I10-13	4

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
040	**Human Performance & Limitations**		**2**
01	Human Factors Basic Concepts	K80	1
02	Aviation Physiology & Health Maintenance	J52-53, J55-59, J61-66, K80	3
03	Aviation Psychology	J67, L05	1

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described

3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
050	**Meteorology**		**3**
01	The Atmosphere	I20-22	4
02	Wind	I23, I32	3
03	Thermodynamics	I24-25	3
04	Clouds & Fog	I24-26, I31	4
05	Precipitation	I24	3
06	Airmasses & Fronts	I27	4
07	Pressure Systems	I23, I34	3
08	Climatology	I23, I33-34	2
09	Hazards	I28-30, I32, K01	4
10	Meteorological Information	I40-53	5

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
060	**Navigation**		
061	**General Navigation**		**2**
01	Basics of Navigation	H07	2
02	Magnetism & Compasses	H03	2
03	Charts	H07	2
04	DR	H06-07	3
05	In-Flight Navigation	H07, I08	3
06	INS	J01	1
062	**Radio Navigation**		**1**
01	Radio Aids	I07-08, J01	2
02	Basic Radar Principles	I07-08, J01	1
05	RNAV	J01	1
06	Self-Contained & External Reference Systems	J01	1

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
070	**Operational Procedures**		
071	**Flight Operations**		**2**
01	Annex 6/JAR OPS Requirements	FAR 121/125/135	1
02	Special Operational Procedures & Hazards	B11, B15, B97, C10, F02, G01-03, J20-22, J27-30, L50, L62, L70, M13, M51	3

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
080	**Principles of Flight**		
081 01	**Subsonic Aerodynamics**		**3**
01	Basics, Laws & Definitions	H01, H66	3
02	2-Dimensional Flow over an Aerofoil	H01, H66, W03	3
03	Coefficients	H01, H66, T34	3
04	3-Dimensional Flow over an Aerofoil	H01, H66, W03	3
05	Total Drag	H01, H66, T34, W05	4
06	Ground Effect	H66	3
07	C_L/V Relationship for Constant L		0
08	Stall	H01, T34, W04	3
09	C_{LMAX} Augmentation	H01, T34	3
10	Means to decrease C_L/C_D Ratio & increase Drag	T34	2
11	Boundary Layer	T34	3
12	Special Circumstances		0
081 02	**Transonic Aerodynamics**		**3**
01	Mach Number	W17	3
02	Normal Shockwaves	W17	3
03	Means to avoid exceeding M_{CRIT}	W17	3
081 03	**Supersonic Aerodynamics**		**3**
01	Oblique Shockwaves	W17	3
081 04	**Stability**		**2**
01	Stable Horizontal Flight	H01, H66	3
02	Methods of achieving Balance	H01, H52	2
03	Longitudinal Stability	H01, H66	2
04	Static Directional Stability	H01, H66	2
05	Static Lateral Stability	H01, H66	2
06	Dynamic Lateral & Directional Stability	H01, H66	3
081 05	**Control**		**3**
01	General	H02, H53, H66	4
02	Pitch Control	H02, H53	3
03	Directional Control	H02, H53	3
04	Roll Control	H02, H53	3
05	Interactions in Different Planes	H02, H53	1
06	Methods of reducing Control Forces	H02, H53	2
07	Mass Balance	H02, H53	3

Depth of Knowledge Indicators:

0 - No Information

1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
080	**Principles of Flight**		
081 06	**Limitations**		**3**
01	Operating Limitations	H66	2
02	Manoeuvring Envelope	H01, H66	3
03	Gust Envelope	H01, H66	3
081 07	**Propellers**		**3**
01	Conversion of Engine Torque to Thrust	H51, H66	3
02	Engine Failure or Engine Stop	H65	4
03	Design Features for Power Absorption	H51, H66	3
04	Moments & Couples due to Propeller Operation	H51, H66	4
081 08	**Flight Mechanics**		**3**
01	Forces acting on an Aeroplane	H66	3
02	Asymmetric Thrust	H66	3
03	Emergency Descent	V09	2

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

JAR-FCL Code	JAR-FCL Subject	Applicable FAA Subject Matter Knowledge Codes	Depth of Knowledge
090	**Communications**		
	VFR Communications		**4**
01	Definitions	J33	4
02	General Operating Procedures	J12-18	4
03	Relevant Weather Information Terms	J25	4
04	VFR Communications Failure Procedures	J24	4
05	Distress & Urgency Procedures	J23	4
06	VHF Propagation & Allocation of Frequencies	I09	3
	IFR Communications		**4**

07	Definitions	J33	4
08	General Operating Procedures	I09, I11-12, J12-18	4
09	VFR Communications Failure Procedures	J24	4
10	Distress & Urgency Procedures	J23	4
11	Relevant Weather Information Terms	J25	4
12	Morse Code	J12	4

Depth of Knowledge Indicators:

0 - No Information
1 - Introduction to the Subject
2 - Basic Concepts are Described
3 - Minor Areas of Deficiency and/or Difference in Application of Knowledge
4 - Equivalent to JAR-FCL 1
5 - Information Additional to JAR-FCL 1

Appendix 2
Theoretical Knowledge – FAA Subject Matter Knowledge Codes

FAR 1 - Definitions and Abbreviations

A01 General Definitions
A02 Abbreviations and Symbols

FAR 61 - Certification: Pilots and Flight Instructors

A20 General
A21 Aircraft Ratings and Special Certificates
A22 Student Pilots
A23 Private Pilots
A24 Commercial Pilots
A25 Airline Transport Pilots
A26 Flight Instructors

FAR 71 - Designation of Federal Airways, Area Low Routes, Controlled Airspace, and Reporting Points

A60 General
A61 Airport Radar Service Areas
A64 Control Areas and Extensions

FAR 91 - General Operating Rules

B07 General
B08 Flight Rules - General
B09 Visual Flight Rules
B10 Instrument Flight Rules
B11 Equipment, Instrument, and Certification Requirements
B12 Special Flight Operations
B13 Maintenance, Preventive Maintenance, and Alterations
B14 Large and Turbine - powered Multiengine Airplanes
B15 Additional Equipment and Operating Requirements for Large and Transport Category Aircraft
B17 Foreign Aircraft Operations and Operations of U.S.-Registered Civil Aircraft Outside of the U.S.

FAR 97 - Standard Instrument Approach Procedures

B97 General

FAR 108 - Airplane Operator Security

C10 General

FAR 121 - Certification and Operations: Domestic, Flag and Supplemental Air Carriers and Commercial Operators of Large Aircraft

D05 Approval of Routes: Domestic and Flag Air Carriers
D09 Airplane Performance Operating Limitations
D10 Special Airworthiness Requirements
D11 Instrument and Equipment Requirements
D13 Airman and Crewmember Requirements
D14 Training Program
D15 Crewmember Qualifications
D16 Aircraft Dispatcher Qualifications and Duty Time Limitations: Domestic and Flag Air Carriers
D17 Flight Time Limitations and Rest Requirements: Domestic Air Carriers
D18 Flight Time Limitations: Flag Air Carriers
D19 Flight Time limitations: Supplemental Air Carriers and Commercial Operators
D20 Flight Operations
D21 Dispatching and Flight Release Rules
D22 Records and Reports

FAR 125 - Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More

D30 General
D31 Certification Rules and Miscellaneous Requirements
D38 Flight Crewmember Requirements

FAR 135 - Air Taxi Operators and Commercial Operators

E01 General
E02 Flight Operations
E03 Aircraft and Equipment
E04 VFR/IFR Operating Limitations and Weather Requirements
E05 Flight Crewmember Requirements
E06 Flight Crewmember Flight Time Limitations and Rest Requirements
E07 Crewmember Testing Requirements
E09 Airplane Performance Operating Limitations
E10 Maintenance, Preventive Maintenance, and Alterations
E11 Appendix A: Additional Airworthiness Standards for 10 or More Passenger Airplanes

US HMR 172 - Hazardous Materials Table

F02 General

US HMR 175 - Materials Transportation Bureau Hazardous Materials Regulations (HMR)

G01 General Information and Regulations
G02 Loading, Unloading, and Handling
G03 Specific Regulation Applicable According to Classification of Material

NTSB 830 - Rules Pertaining to the Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and Preservation of Aircraft Wreckage, Mail, Cargo, and Records

G10 General
G11 Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft
G12 Preservation of Aircraft Wreckage, Mail, Cargo, and Records
G13 Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft

AC 61-23 - Pilot's Handbook of Aeronautical Knowledge

H01 Principles of Flight
H02 Airplanes and Engines
H03 Flight Instruments
H04 Airplane Performance
H05 Weather
H06 Basic Calculations Using Navigational Computers or Electronic Calculators
H07 Navigation
H09 Appendix 1: Obtaining FAA Publications

AC 91-23 - Pilot's Weight and Balance Handbook

H10 Weight and Balance Control
H11 Terms and Definitions
H12 Empty Weight Center of Gravity
H13 Index and Graphic Limits
H14 Change of Weight
H15 Control of Loading-General Aviation
H16 Control of Loading-Large Aircraft

AC 61-21 - Flight Training Handbook

H50 Introduction to Flight Training
H51 Introduction to Airplanes and Engines
H52 Introduction to the Basics of Flight
H53 The Effect and Use of Controls
H54 Ground Operations
H55 Basic Flight Maneuvers
H56 Airport Traffic Patterns and Operations
H57 Takeoffs and Departure Climbs
H58 Landing Approaches and Landings
H59 Faulty Approaches and Landings
H60 Proficiency Flight Maneuvers
H61 Cross-Country Flying

H62 Emergency Flight by Reference to Instruments
H63 Night Flying
H64 Seaplane Operations
H65 Transition to Other Airplanes
H66 Principles of Flight and Performance Characteristics

AC 61-27 - Instrument Flying Handbook

I01 Training Considerations
I02 Instrument Flying: Coping with Illusions in Flight
I03 Aerodynamic Factors Related to Instrument Flying
I04 Basic Flight Instruments
I05 Attitude Instrument Flying-Airplanes
I06 Attitude Instrument Flying-Helicopters
I07 Electronic Aids to Instrument Flying
I08 Using the Navigation Instruments
I09 Radio Communications Facilities and Equipment
I10 The Federal Airways System and Controlled Airspace
I11 Air Traffic Control
I12 ATC Operations and Procedures
I13 Flight Planning
I14 Appendix: Instrument Instructor Lesson Guide - Airplanes
I15 Segment of Enroute Low Altitude Chart

I20 The Earth's Atmosphere
I21 Temperature
I22 Atmospheric Pressure and Altimetry
I23 Wind
I24 Moisture, Cloud Formation, and Precipitation
I25 Stable and Unstable Air
I26 Clouds
I27 Air Masses and Fronts
I28 Turbulence
I29 Icing
I30 Thunderstorms
I31 Common IFR Producers
I32 High Altitude Weather
I33 Arctic Weather
I34 Tropical Weather
I36 Glossary of Weather Terms

AC 00-45 - Aviation Weather Services

I40 The Aviation Weather Service Program
I41 Surface Aviation Weather Reports
I42 Pilot and Radar Reports and Satellite Pictures
I43 Aviation Weather Forecasts
I44 Surface Analysis Chart
I45 Weather Depiction Chart
I46 Radar Summary Chart
I47 Significant Weather Prognostics
I48 Winds and Temperatures Aloft
I49 Composite Moisture Stability Chart
I50 Severe Weather Outlook Chart
I51 Constant Pressure Charts
I52 Tropopause Data Chart
I53 Tables and Conversion Graphs

AIM - Airman's Information Manual

J01 Air Navigation Radio Aids
J02 Radar Services and Procedures
J03 Airport Lighting Aids
J04 Air Navigation and Obstruction Lighting
J05 Airport Marking Aids and Signs
J06 Airspace - General
J07 Class G Airspace
J08 Controlled Airspace
J09 Special Use Airspace
J10 Other Airspace Areas
J11 Service Available to Pilots
J12 Radio Communications Phraseology and Techniques
J13 Airport Operations
J14 ATC Clearance/Separations
J15 Preflight
J16 Departure Procedures
J17 Enroute Procedures
J18 Arrival Procedures
J19 Pilot/Controller Roles and Responsibilities
J20 National Security and Interception Procedures
J21 Emergency Procedures - General
J22 Emergency Services Available to Pilots
J23 Distress and Urgency Procedures
J24 Two-Way Radio Communications Failure
J25 Meteorology
J26 Altimeter Setting Procedures
J27 Wake Turbulence
J28 Bird Hazards, and Flight over National Refuges, Parks, and Forests
J29 Potential Flight Hazards
J30 Safety, Accident, and Hazard Reports
J31 Fitness for Flight
J32 Type of Charts Available
J33 Pilot Controller Glossary
J34 Airport/Facility Directory
J35 En Route Low Altitude Chart
J36 En Route High Altitude Chart
J37 Sectional Chart
J39 Terminal Area Chart
J40 Standard Instrument Departure (SID) Chart
J41 Standard Terminal Arrival (STAR) Chart
J42 Instrument Approach Procedures

AC 67-2 - Medical Handbook for Pilots

J52 Hypoxia
J53 Hyperventilation
J55 The Ears
J56 Alcohol
J57 Drugs and Flying
J58 Carbon Monoxide
J59 Vision
J60 Night Flight
J61 Cockpit Lighting
J62 Disorientation (Vertigo)
J63 Motion Sickness
J64 Fatigue
J65 Noise
J66 Age
J67 Some Psychological Aspects of Flying
J68 The Flying Passenger

Additional Advisory Circulars

K01 AC 00-24, Thunderstorms
K02 AC 00-30, Rules of Thumb for Avoiding or Minimizing Encounters with Clear Air Turbulence
K03 AC 00-34, Aircraft Ground Handling and Servicing
K04 AC 00-54, Pilot Wind Shear Guide
K11 AC 20-34, Prevention of Retractable Landing Gear Failure
K12 AC 20-32, Carbon Monoxide (CO) Contamination in Aircraft Detection and Prevention
K13 AC 20-43, Aircraft Fuel Control
K20 AC 20-103, Aircraft Engine Crankshaft Failure
K23 AC 20-121, Airworthiness Approval of Airborne Loran C Systems for Use in the U.S. National Airspace System
K40 AC 25-4, Inertial Navigation System (INS)
K80 AC 60-4, Pilot's Spatial Disorientation

Additional Advisory Circulars - Continued

L05 AC 60-22, Aeronautical Decision Making
L10 AC 61-67, Stall and Spin Awareness Training
L15 AC 61-107, Operations of Aircraft at Altitudes Above 25,000 Feet MSL and/or MACH numbers (M_{MO}) Greater Than .75
L34 AC 90-48, Pilots' Role in Collision Avoidance
L50 AC 91-6, Water, Slush, and Snow on the Runway
L52 AC 91-13, Cold Weather Operation of Aircraft
L53 AC 91-14, Altimeter Setting Sources
L57 AC 91-43, Unreliable Airspeed Indications
L59 AC 91-46, Gyroscopic Instruments Good Operating Practices
L61 AC 91-50, Importance of Transponder Operation and Altitude Reporting
L62 AC 91-51, Airplane De-ice and Anti-Ice Systems
L70 AC 91-67, Minimum Equipment Requirements for General Aviation Operations under FAR Part 91
L80 AC 103-4, Hazard Associated with Sublimation of Solid Carbon Dioxide (Dry Ice) Aboard Aircraft
L90 AC 105-2, Sport Parachute Jumping

Additional Advisory Circulars - Continued

M01 AC 120-12, Private Carriage versus Common Carriage of Persons or Property
M02 AC 120-27, Aircraft Weight and Balance Control
M08 AC 120-58, Large Aircraft Ground Deicing
M13 AC 121-195-1, Operational Landing Distances for Wet Runways; Transport Category Airplanes
M51 AC 20-117, Hazards Following Ground Deicing and Ground Operations in Conditions Conducive to Aircraft Icing

The Aircraft Gas Turbine Engine and Its Operation - United Technologies Corporation, Pratt & Whitney, 1988

T01 Gas Turbine Engine Fundamentals
T03 Gas Turbine Engine Components
T05 Operational Characteristics of Jet Engines

Aircraft Powerplants - Glencoe/McGraw - Hill, Seventh Edition

T07 Aircraft Powerplant Classification and Progress
T11 Induction Systems, Superchargers, Turbochargers, and Cooling and Exhaust Systems
T24 Gas - Turbine Operation, Inspection, Troubleshooting, Maintenance, and Overhaul

Aircraft Basic Science - Glencoe/McGraw-Hill, Seventh Edition

T34 Airfoils and their Application

Aircraft Maintenance and Repair - Glencoe/McGraw - Hill, Sixth Edition

T45 Aircraft Systems

EA-363 - Transport Category Aircraft Systems - IAP, Inc.

T55 Anti-Icing Systems and Rain Protection
T58 Fuel Systems

FAA Accident Prevention Program Bulletins

V01 FAA-P-8740-2, Density Altitude
V02 FAA-P-8740-5, Weight and Balance
V03 FAA-P-8740-12, Thunderstorms
V04 FAA-P-8740-19, Flying Light Twins Safely
V05 FAA-P-8740-23, Planning your Takeoff
V06 FAA-P-8740-24, Tips on Winter Flying
V07 FAA-P-8740-25, Always Leave Yourself an Out
V08 FAA-P-8740-30, How to Obtain a Good Weather Briefing
V09 FAA-P-8740-40, Windshear
V10 FAA-P-8740-41, Medical Facts for Pilots
V11 FAA-P-8740-44, Impossible Turns
V12 FAA-P-8740-48, On Landings, Part I
V13 FAA-P-8740-49, On Landings, Part II
V14 FAA-P-8740-50, On Landings, Part III
V15 FAA-P-8740-51, How to Avoid a Midair Collision
V16 FAA-P-8740-52, The Silent Emergency

EA-338 - Flight Theory for Pilots - IAP, Inc., Third Edition

W03 Aerodynamic Forces on Airfoils
W04 Lift and Stall
W05 Drag
W06 Jet Aircraft Basic Performance
W07 Jet Aircraft Applied Performance
W12 Takeoff Performance
W13 Landing Performance
W14 Maneuvering Performance
W16 Directional and Lateral Stability and Control
W17 High Speed Flight

Fly the Wing, - Iowa State University Press/Ames, Second Edition

X07 Takeoffs
X09 Climb, Cruise, and Descent
X15 Landings: Approach Technique and Performance

Appendix 3A
Validation Syllabus – FAA ATP(A) from JAA ATP(A)

Aviation Operations – 2 Hours:

Relevant Parts:

FAR 1 - Definitions and Abbreviations
- A01 General Definitions
- A02 Abbreviations and Symbols

FAR 61 - Certification: Pilots and Flight Instructors
- A20 General
- A21 Aircraft Ratings and Special Certificates
- A25 Airline Transport Pilots

FAR 71 - Designation of Federal Airways, Area Low Routes, Controlled Airspace, Reporting Points
- A60 General
- A61 Airport Radar Service Areas
- A64 Control Areas and Extensions

FAR 91 - General Operating Rules
- B07 General
- B08 Flight Rules - General
- B09 Visual Flight Rules
- B10 Instrument Flight Rules
- B11 Equipment, Instrument, and Certification Requirements
- B12 Special Flight Operations
- B13 Maintenance, Preventive Maintenance, and Alterations
- B14 Large and Turbine - powered Multiengine Airplanes
- B15 Additional Equipment and Operating Requirements for Large and Transport Category Aircraft
- B17 Foreign Aircraft Operations and Operations of U.S.-Registered Civil Aircraft Outside of the U.S.

FAR 97 - Standard Instrument Approach Procedures
- B97 General

FAR 108 - Airplane Operator Security
- C10 General

FAR 121 - Certification and Operations: Domestic, Flag and Supplemental Air Carriers and Commercial Operators of Large Aircraft
- D05 Approval of Routes: Domestic and Flag Air Carriers
- D09 Airplane Performance Operating Limitations
- D10 Special Airworthiness Requirements
- D11 Instrument and Equipment Requirements
- D13 Airman and Crewmember Requirements
- D14 Training Program
- D15 Crewmember Qualifications

D16 Aircraft Dispatcher Qualifications and Duty Time Limitations: Domestic and Flag Air Carriers
D17 Flight Time Limitations and Rest Requirements: Domestic Air Carriers
D18 Flight Time Limitations: Flag Air Carriers
D19 Flight Time limitations: Supplemental Air Carriers and Commercial Operators
D20 Flight Operations
D21 Dispatching and Flight Release Rules
D22 Records and Reports

FAR 125 - Certification and Operations: Airplanes Having a Seating Capacity of 20 or More Passengers or a Maximum Payload Capacity of 6,000 Pounds or More

D30 General
D31 Certification Rules and Miscellaneous Requirements
D38 Flight Crewmember Requirements

FAR 135 - Air Taxi Operators and Commercial Operators

E01 General
E02 Flight Operations
E03 Aircraft and Equipment
E04 VFR/IFR Operating Limitations and Weather Requirements
E05 Flight Crewmember Requirements
E06 Flight Crewmember Flight Time Limitations and Rest Requirements
E07 Crewmember Testing Requirements
E09 Airplane Performance Operating Limitations
E10 Maintenance, Preventive Maintenance, and Alterations
E11 Appendix A: Additional Airworthiness Standards for 10 or More Passenger Airplanes

Other Documents:

US HMR 172 - Hazardous Materials Table

F02 General

US HMR 175 - Materials Transportation Bureau Hazardous Materials Regulations (HMR)

G01 General Information and Regulations
G02 Loading, Unloading, and Handling
G03 Specific Regulation Applicable According to Classification of Material

NTSB 830 - Rules pertaining to the Notification and Reporting of Aircraft Accidents or Incidents and Overdue Aircraft, and preservation of Aircraft Wreckage, Mail, Cargo, and Records

G10 General
G11 Initial Notification of Aircraft Accidents, Incidents, and Overdue Aircraft
G12 Preservation of Aircraft Wreckage, Mail, Cargo, and Records
G13 Reporting of Aircraft Accidents, Incidents, and Overdue Aircraft

Airman's Information Manual (AIM):

J01 Air Navigation Radio Aids
J02 Radar Services and Procedures
J03 Airport Lighting Aids
J04 Air Navigation and Obstruction Lighting
J05 Airport Marking Aids and Signs
J06 Airspace - General
J07 Class G Airspace
J08 Controlled Airspace
J09 Special Use Airspace
J10 Other Airspace Areas

J11 Service Available to Pilots
J12 Radio Communications Phraseology and Techniques
J13 Airport Operations
J14 ATC Clearance/Separations
J15 Preflight
J16 Departure Procedures
J17 Enroute Procedures
J18 Arrival Procedures
J19 Pilot/Controller Roles and Responsibilities
J20 National Security and Interception Procedures
J21 Emergency Procedures - General
J22 Emergency Services Available to Pilots
J23 Distress and Urgency Procedures
J24 Two-Way Radio Communications Failure
J25 Meteorology
J26 Altimeter Setting Procedures
J27 Wake Turbulence
J28 Bird Hazards, and Flight over National Refuges, Parks, and Forests
J29 Potential Flight Hazards
J30 Safety, Accident, and Hazard Reports
J31 Fitness for Flight
J32 Type of Charts Available
J33 Pilot Controller Glossary
J34 Airport/Facility Directory
J35 En Route Low Altitude Chart
J36 En Route High Altitude Chart
J37 Sectional Chart
J39 Terminal Area Chart
J40 Standard Instrument Departure (SID) Chart
J41 Standard Terminal Arrival (STAR) Chart
J42 Instrument Approach Procedures

Aviation Weather Services (AC 00-45D):

I40 The Aviation Weather Service Program
I41 Surface Aviation Weather Reports
I42 Pilot and Radar Reports and Satellite Pictures
I43 Aviation Weather Forecasts
I44 Surface Analysis Chart
I45 Weather Depiction Chart
I46 Radar Summary Chart
I47 Significant Weather Prognostics
I48 Winds and Temperatures Aloft
I49 Composite Moisture Stability Chart
I50 Severe Weather Outlook Chart
I51 Constant Pressure Charts
I52 Tropopause Data Chart
I53 Tables and Conversion Graphs

Reference Materials.
AC 00-45D
Aviation Weather Services Explained
FAR/AIM
Parts 108/121

Appendix 3B
Validation Syllabus – JAA ATP(A) from FAA ATP(A)

	Aviation Operations – 1 Hour 30 Minutes
010	**Air Law & ATC Procedure**
01	International Agreements & Organisations
02	Airworthiness of Aircraft
03	Nationality and Registration Marks
04	Personnel Licencing
05	Rules of the Air
06	PANS(Ops)
07	Air Traffic Services
08	Aeronautical Information Service
09	Aerodromes
10	Facilitation
11	Search & Rescue
12	Security
13	Accident & Incident Investigation
14	JAR-FCL 1
070	**Operational Procedures**
071	**Flight Operations**
01	Annex 6/JAR OPS Requirements
02	Special Operational Procedures & Hazards

Reference Materials.
This subject area currently lacks a specific textbook, however, that shortcoming will, no doubt, be rectified soon.
Annexes to the Chicago Convention- 2/6/7/8/9/11/12/13/14/15/17/18.
Docs 4444/7030(EUR)/8168
JAR 25
JAR-FCL 1
JAR-OPS

	Transport Category Aircraft Systems[1] – 2 Hours
020	**Aircraft General Knowledge**
02101	**Airframe & Systems**
07	Hydraulics
09	Air-Driven Systems (Turboprop/Jet)
02102	**Electrics**
01	DC
02	AC
03	Semiconductors
04	Basic Knowledge of Computers
02103	**Powerplant**
05	APU
02104	**Emergency Equipment**
01	Doors & Emergency Exits
02	Smoke Detection
03	Fire Detection
04	Fire Fighting Equipment
05	Aircraft Oxygen Equipment
06	Emergency Equipment
02201	**Instrumentation**
04	Radio Altimeter
05	EFIS
06	FMS
02202	**Automatic Flight Control System**
01	Flight Director
02	Autopilot
03	Flight Envelope Protection
04	Yaw Damper
05	Automatic Pitch Trim
06	Thrust Computation
07	Autothrust
02203	**Warning & Recording Equipment**
01	Warnings General
02	Altitude Alert System
03	GPWS
04	TCAS II
05	Overspeed Warning
06	Stall Warning System
07	Flight Data Recorder
08	Cockpit Voice Recorder

02204	**Powerplant & System Monitoring Insts**
01	Pressure Gauge
02	Temperature Gauge
03	RPM Indicator
04	Consumption Gauge
05	Fuel Gauge
06	Torque Meter
07	Flight Hour Meter
08	Vibration Monitoring
09	Remote (Signal) Transmission System
10	Electronic Displays
060	**Navigation**
061	**General Navigation**
06	INS
062	**Radio Navigation**
05	RNAV
06	Self-Contained & External Reference Systems

[1] **An exemption from this examination may be considered for the 'transport-experienced', ie. an individual who has/or has held Type Ratings on an 'older generation' transport category aeroplane** AND **a 'glass cockpit' transport category aeroplane.**

Reference Materials.
The Commercial Pilot's Study Manual Series – Volumes 3/4
Transport Category Aircraft Systems

	Human Factors[2] – 40 Minutes
040	**Human Performance & Limitations**
040 01	**Human Factors Basic Concepts**
01	Human Factors in Aviation
02	Accident Statistics
03	Flight safety Concepts
040 03	**Aviation Psychology**
01	Human Information Processing
02	Human Error & Reliability
03	Decision Making
04	Avoiding & Managing Errors: Cockpit Management
05	Personality
06	Human Under-load & Over-load
07	Advanced Cockpit Automation

[2] **An exemption from this examination may be considered for an individual who has attended a certified CRM course, minimum length 2 days.**

Reference Materials:
Basic Flight Physiology
Human Factors in Aviation
Human Factors in Flight
Human Factors for Pilots

ATTACHMENT 3

Initial Validation

for Pilots in Command holding a JAR-FCL ATP Licence (ATPL) with JAR-OPS 1 experience or an FAA ATP Certificate (ATPC) with 14 CFR Part 121 experience

<table>
<tr><th colspan="2">Medical requirements</th></tr>
<tr><td>FAA to JAA
To validate a FAA ATP for a JAA ATPL, a pilot must hold a current FAA class 1 medical certificate.</td><td>JAA to FAA
To validate a JAA ATPL for a FAA ATP, a pilot must hold a current JAA class 1 medical certificate.</td></tr>
<tr><th colspan="2">Minimum/Maximum Age</th></tr>
<tr><td>FAA to JAA
Age Minimum: 21 years
Age Maxiumum: 65 years</td><td>JAA to FAA
Age Minimum: 23 years
Age Maximum: 60 years</td></tr>
<tr><th colspan="2">Experience</th></tr>
<tr><td>FAA to JAA
a) Hold an FAA ATPC.
b) Hold a current type rating in a multi-pilot airplane operated in 14 CFR Part 121 operations.
and possess the following experience:
c) 1500 hrs as pilot on multi-pilot aeroplanes to include
(i) 500 hrs PiC in 14 CFR Part 121 operations, or
(ii) 1000 hrs SiC in 14 CFR Part 121 operations.</td><td>JAA to FAA
a) Hold a JAR-FCL ATPL.
b) Hold a current type rating in a multi-pilot aeroplane operated in JAR-OPS 1 operations.
and possess the following experience:
c) 1500 hrs as pilot on multi pilot aeroplanes to include 500 hrs in JAR-OPS 1 operations.</td></tr>
<tr><th colspan="2">Educational requirements</th></tr>
<tr><td colspan="2">No further conditions.</td></tr>
<tr><th colspan="2">CRM and MCC</th></tr>
<tr><td colspan="2">No further conditions.</td></tr>
<tr><th colspan="2">JAR and FAR Knowledge</th></tr>
<tr><td>FAA to JAA
Demonstrate to the satisfaction of the Authority a knowledge of relevant sections of JAR-OPS, JAR-FCL and ATC procedures.</td><td>JAA to FAA
Demonstrate to the satisfaction of the Administrator a knowledge of relevant sections of 14 CFR.</td></tr>
<tr><th colspan="2">Skill Test</th></tr>
<tr><td>FAA to JAA
No additional skill test is required, provided that a proficiency check on an aircraft certificated for a crew of two or more has been successfully completed during the preceding 12 months.</td><td>JAA to FAA
No additional skill test is required, provided that the applicant holds a current JAR-FCL ATPL on the date of application.</td></tr>
<tr><td colspan="2">The validation may remain in effect for a period not to exceed 5 years, provided the pilot is still employed in 14 CFR Part 121 / JAR-OPS 1 operations.
The validation may be renewed provided that the initial conditions are still met.
Validation is restricted for use on aircraft registered in the State of validation issue.</td></tr>
</table>