

PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA

NOMOR : KP..274..TAHUN..2015...

TENTANG

PETUNJUK TEKNIS PERATURAN KESELAMATAN PENERBANGAN SIPIL
BAGIAN 8900-4.10 TENTANG PENERBITAN DAN PENGAWASAN
UNTUK OTORISASI RVSM
(SI 8900-4.10 ISSUANCE AND SURVEILLANCE FOR REDUCED VERTICAL
SEPARATION MINIMUMS AUTHORIZATIONS)

DENGAN RAHMAT TUHAN YANG MAHA ESA

DIREKTUR JENDERAL PERHUBUNGAN UDARA,

Menimbang : bahwa untuk melaksanakan ketentuan dalam Peraturan Menteri Perhubungan Nomor PM 28 Tahun 2013 tentang Peraturan Keselamatan Penerbangan Sipil Bagian 121 (*Civil Aviation Safety Regulation Part 121*) tentang Persyaratan-Persyaratan Sertifikasi Dan Operasi Bagi Perusahaan Angkutan Udara Yang Melakukan Penerbangan Dalam Negeri, Internasional Dan Angkutan Udara Niaga Tidak Berjadwal (*Certification And Operating Requirements: Domestic, Flag, and Supplemental Air Carriers*) sebagaimana diubah terakhir dengan Peraturan Menteri Perhubungan Nomor PM 36 Tahun 2015, perlu menetapkan Peraturan Direktur Jenderal Perhubungan Udara tentang Petunjuk Teknis Peraturan Keselamatan Penerbangan Sipil Bagian 8900-4.10 Tentang Penerbitan Dan Pengawasan Untuk Otorisasi RVSM (*SI 8900-4.10 Issuance And Surveillance For Reduced Vertical Separation Minimums Authorizations*);

Mengingat : 1. Undang-Undang Nomor 1 Tahun 2009 tentang Penerbangan (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 1, Tambahan Lembaran Negara Republik Indonesia Nomor 4956);

2. Peraturan Pemerintah Nomor 40 Tahun 2012 tentang Pembangunan dan Pelestarian Lingkungan Hidup Bandar Udara (Lembaran Negara Republik Indonesia Tahun 2012 Nomor 71, Tambahan Lembaran Negara Republik Indonesia Nomor 5295);

3. Peraturan Presiden Nomor 7 Tahun 2015 tentang Organisasi Kementerian Negara (Lembaran Negara Republik Indonesia Tahun 2015 Nomor 5);

4. Peraturan Presiden Nomor 24 Tahun 2010 ten tang Kedudukan, Tugas, dan Fungsi Kementerian Negara serta Susunan Organisasi, Tugas dan Fungsi Eselon I Kementerian Negara, sebagaimana telah diubah terakhir dengan Peraturan Presiden Nomor 135 Tahun 2014;
5. Peraturan Menteri Perhubungan Nomor KM 25 Tahun 2009 tentang Pendelegasian Kewenangan Menteri Perhubungan Kepada Direktur Jenderal Perhubungan Udara di Bidang Penerbangan;
6. Peraturan Menteri Perhubungan Nomor KM 8 Tahun 2010 tentang Program Keselamatan Penerbangan Nasional;
7. Peraturan Menteri Perhubungan Nomor KM 60 Tahun 2010 tentang Organisasi dan Tata Kerja Kementerian Perhubungan, sebagaimana telah diubah terakhir dengan Peraturan Menteri Perhubungan Nomor 68 Tahun 2013;

MEMUTUSKAN:

Menetapkan : PERATURAN DIREKTUR JENDERAL PERHUBUNGAN UDARA TENTANG PETUNJUK TEKNIS PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 8900-4.10 TENTANG PENERBITAN DAN PENGAWASAN UNTUK OTORISASI RVSM (*SI 8900-4.10 ISSUANCE AND SURVEILLANCE FOR REDUCED VERTICAL SEPARATION MINIMUMS AUTHORIZATIONS*).

Pasal 1

- (1) Memberlakukan Petunjuk Teknis Peraturan Keselamatan Penerbangan Sipil Bagian 8900-4.10 Tentang Penerbitan Dan Pengawasan Untuk Otorisasi RVSM (*SI 8900-4.10 Issuance And Surveillance For Reduced Vertical Separation Minimums Authorizations*).
- (2) Petunjuk Teknis Peraturan Keselamatan Penerbangan Sipil Bagian 8900-4.10 Tentang Penerbitan Dan Pengawasan Untuk Otorisasi RVSM (*SI 8900-4.10 Issuance And Surveillance For Reduced Vertical Separation Minimums Authorizations*) sebagaimana dimaksud pada ayat (1) tercantum dalam Lampiran Peraturan ini dan merupakan bagian yang tidak terpisahkan dari Peraturan ini.

Pasal 3

Pada saat Peraturan ini mulai berlaku, Peraturan Direktur Jenderal Perhubungan Udara Nomor KP.364 Tahun 2012 tentang Petunjuk Pelaksanaan Peraturan Keselamatan Penerbangan Sipil Bagian 8900-4.10 (*Staff Instruction*) Tentang Penerbitan Dan Pengawasan Untuk Otorisasi *Reduced Vertical Separation Minimums Authorizations (RVSM) (Issuance And Surveillance For Reduced Vertical Separation Minimums Authorizations)*, dicabut dan dinyatakan tidak berlaku.

Pasal 4

Direktur Jenderal Perhubungan Udara melakukan pengawasan terhadap pelaksanaan Peraturan ini.

Pasal 5

Peraturan ini mulai berlaku sejak tanggal ditetapkan.

Ditetapkan di : Jakarta
Pada tanggal : 8 APRIL 2015

DIREKTUR JENDERAL PERHUBUNGAN UDARA

ttd.

SUPRASETYO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM DAN HUMAS,



HEMI PAMURAHARJO

Pembina Tk. I (IV/b)

NIP. 19660508 199003 1 001

Staff Instruction

SI 8900-4.10

Issuance and Surveillance for Reduced Vertical Separation Minimums (RVSM) Authorizations

Amendment :
Date :

REPUBLIC OF INDONESIA – MINISTRY OF TRANSPORTATION
DIRECTORATE GENERAL OF CIVIL AVIATION
JAKARTA – INDONESIA

FOREWORD

1. **PURPOSE** : This Staff Instruction prescribes responsibilities, policies and procedures to be used by the Directorate of Airworthiness and Aircraft Operation for the issuance and surveillance for Reduced Vertical Separation Minimums (RVSM). This Staff Instruction may be made available to the public so that they may better understand the authority and responsibility of the DGCA
2. **REFERENCES** : This Staff Instruction should be used in accordance with the applicable regulations.
3. **CANCELLATION** : Staff Instruction Number 8900 - 4.10 (KP 364 Year 2012) issued 12 September 2012 is cancelled.
- 3 **AMENDMENT** : Amendment of this Staff Instruction shall be approved by the Director General of Civil Aviation.

DIREKTUR JENDERAL PERHUBUNGAN UDARA

ttd.

SUPRASETYO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM DAN HUMAS,



HEMI PAMUBAHARJO

Pembina Tk. I (IV/b)

NIP. 19660508 199003 1 001

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CHAPTER 1 GENERAL

1.1 Objective

To provide guidance for evaluating applications for an operator to conduct flight in airspace where Reduced Vertical Separation Minimums (RVSM) is applied, evaluating and approving RVSM maintenance programs associated with an application, and issuing Authorizations, Conditions, and Limitations (ACL), and issuing Operations Specifications (OpSpec), as appropriate.

1.2 Requirement

The current regulation CASR 91 appendix G, states the requirements an operator and the operator's aircraft must comply with for a person to operate an Indonesian registered aircraft in RVSM airspace.

1.3 Authorization

Aircraft and operators must be authorized by the DAAO to conduct operations in RVSM airspace. The criteria evaluated to issue this authorization consist of three basic elements:

- 1) An aircraft must be determined to comply with the requirements of CASR 91 appendix G, section 2.
- 2) The operator's maintenance program must be found to comply with the requirements of CASR 91 appendix G, section 3.
- 3) The operator must be found to have adopted RVSM operating policies and procedures for pilots and, if applicable, flight operations officers, that are approved to the DAAO.

1.4 Responsibility

- 1) The Deputy Director for Engineering assigns team leaders and members for certification process. The team members shall be include the: Airworthiness Engineer Principal operations inspector (POI) (Operations). Principal maintenance inspector (PMI) (Airworthiness).
- 2) The evaluation of the aircraft, maintenance program, and operator's program should be coordinated between airworthiness engineers, maintenance inspectors, and flight operations inspectors. The Airworthiness Engineer will make the determination of an aircraft's compliance. The PMI will evaluate the operator's maintenance program for approval by the Director. The principal operations inspector (POI) will evaluate and accept the required program operational elements. DAAO will issue an ACL and OpSpec, as appropriate.

- 3) The applicant will obtain and submit all documents that establish the eligibility of its aircraft. The applicant will submit to the DGCA evidence that it is capable of operating and maintaining each aircraft or aircraft group for which it applies, and an RVSM maintenance program for approval. The applicant will establish that each pilot has an adequate knowledge of RVSM requirements and procedures. The applicant may also be required to submit for acceptance RVSM policy and procedures, and its initial and recurring pilot training requirements.

CHAPTER 2 APPLICATION PROCESS

2.1 Aircraft Eligibility

2.2

- A. An Aircraft may be authorized to conduct RVSM operations if the DGCA finds that it complies with the requirements of CASR 91 appendix G, section 2. Aircraft may be produced RVSM-compliant or brought into compliance through the application of approved Service Bulletins (SB), Service Letters (SL), or Supplemental Type Certificates (STC), which apply to the specific aircraft type or group and, if applicable, the specific aircraft serial number.
- B. The Airworthiness Engineer makes the determination of aircraft RVSM eligibility after reviewing substantiating documents developed to meet the following applicable requirements.
 - 1) Aircraft not produced under type certificate in accordance with CASR 21 Section 21.123 to meet requirements as stated in CASR 91 appendix G. The Airworthiness Engineer ensures that the inspections and/or modifications required to meet the specified performance have been performed and documented.
 - 2) Aircraft produced under type certificate in accordance with CASR 21 Section 21.123 to meet requirements as stated in CASR 91 appendix G. The Airworthiness Engineer ensures that RVSM eligibility is denoted in the Airplane Flight Manual (AFM) or aircraft type certificate data sheet (TCDS) and that the initial finding of conformity with type design has been performed.

NOTE: The determination that an aircraft is RVSM-compliant may be accomplished entirely through the examination of documents and/or data. Physical inspection of an airframe may not be required if the submitted documentation is sufficient.

- C. Upon determination that an aircraft is RVSM compliant, the DAAO will notify the applicant in writing.

2.3 Maintenance Program

- A. Application for Authorization.

The application for authorization to operate within RVSM airspace must include an approved RVSM maintenance program. This program must outline procedures to maintain aircraft in accordance with the requirements of CASR 91 appendix G.

B. Develop and Obtain Approval.

Operators without an approved aircraft maintenance program are required to develop and obtain approval of an RVSM maintenance program. The approved RVSM maintenance program is not required to include elements not related to RVSM maintenance. Inspection programs such as an Approved Aircraft Inspection Program (AAIP) or manufacturer's recommended inspection program do not satisfy the RVSM requirements because they do not contain procedures to maintain RVSM aircraft. Operators who maintain their aircraft under a continuous airworthiness maintenance program (CAMP) may choose to incorporate the RVSM maintenance requirements into the program.

C. Approval.

The PMI will indicate approval of the RVSM maintenance program. The approved RVSM maintenance program elements are specific to the operator and aircraft for which they are approved and are not transferable.

D. RVSM Maintenance Components.

Each RVSM maintenance program must include the following:

- 1) Identification of components considered to be RVSM critical, and identification of structural areas noted as RVSM critical areas.
- 2) The name or title of the responsible person who will ensure that the aircraft is maintained in accordance with CASR 43 under the approved program.
- 3) The method the operator will use to ensure that all personnel performing maintenance on the RVSM system are properly trained, qualified, and knowledgeable of that specific system.
- 4) The method the operator will use to notify the crew if the aircraft has been restricted from RVSM but is airworthy for an intended flight.
- 5) The method the operator will use to ensure conformance to the RVSM maintenance standards, including the use of calibrated and appropriate test equipment and a quality assurance program for ensuring continuing accuracy and reliability of test equipment, especially when outsourced.
- 6) The method the operator will use to verify that components and parts are eligible for installation in the RVSM system, as well as to prevent ineligible components or parts from being installed.

- 7) The method the operator will use to return an aircraft to service after maintenance has been performed on an RVSM component/system or after the aircraft was determined to be non-compliant.
- 8) Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements.
 - These elements may be listed in detail or described by reference to an acceptable program that is identified and controlled by revision or issue number.
 - The need for functional flight tests may be limited to only after repairs or modifications that are deemed to warrant such testing and may be accomplished through monitoring height-keeping performance.
- 9) The maintenance requirements listed in Instructions for Continued Airworthiness (ICA) associated with any RVSM associated component or modification.
- 10) Any other maintenance requirement that needs to be incorporated to ensure continued compliance with RVSM requirements.

E. RVSM Requirements. Operators using the services of CASR 145 certificated repair stations must include provisions to ensure that the requirements of their RVSM programs are being met.

2.4 Operator Evaluation

A. Obtain Authorization.

To obtain authorization from the DAAO to conduct operations in RVSM airspace, the operator must be found to have adopted RVSM operating policies and procedures for pilots and, if applicable, dispatchers, and ensure each pilot has adequate knowledge of RVSM requirements, policies, and procedures. The Minimum Equipment List (MEL), if used, must incorporate the required changes stated in Master Minimum Equipment List (MMEL).

B. Recommendation.

Director of DAAO, recommended by certification team will issue the ACL and OpSpec, as appropriate, after determination of aircraft compliance, approval of the RVSM maintenance program, and approve of operator policies and procedures.

C. Approval.

An applicant who operates under CASR 121 or 135 must submit for approval the initial and recurrent pilot training requirements and RVSM policies and procedures that will enable it to conduct RVSM operations safely.

2.5 Prerequisites and Coordination Requirements

A. Prerequisites.

- Knowledge of the regulatory requirements of CASR part 91, appendix G, as applicable
- Successful completion of appropriate Airworthiness Indoctrination course(s)

B. Coordination. This task requires coordination between Airworthiness Engineer, PMI, and POI.

2.6 References

CASRs 43, 91, 145, 121 and 135.

2.7 Procedures

A. Determination of Aircraft Compliance.

- 1) Determine if the aircraft meets the requirements of CASR 91 appendix G, section 2 and is RVSM compliant.
- 2) Review the substantiating documentation for the aircraft and its associated systems to identify references to RVSM capability. For aircraft not produced under type certificate in accordance with CASR 21.123 to meet requirements as stated in CASR 91 appendix G, ensure that all required elements of the approved data through which RVSM airworthiness approval is sought have been applied. For aircraft produced under type certificate in accordance with CASR 21.123 to meet requirements as stated in CASR 91 appendix G, either the aircraft TCDS or flight manual will state RVSM compliance.
- 3) If sufficient documentation is available, a determination of compliance may be made entirely through the examination of documents and/or data. Physical inspection of an airframe may not be required.

B. Evaluation and Approval of Operator's RVSM Maintenance Program.

Review the RVSM maintenance program to ensure that it contains the following:

- 1) Identification of components considered to be RVSM critical, and identification of structural areas noted as RVSM critical areas.
- 2) The name or title of the responsible person who will ensure that the aircraft is maintained in accordance with CASR 43 under the approved program.
- 3) The method the operator will use to ensure that all personnel performing maintenance on the RVSM system are properly trained, qualified, and knowledgeable of that specific system.
- 4) The method the operator will use to notify the crew if the aircraft has been restricted from RVSM but is airworthy for an intended flight.
- 5) The method the operator will use to ensure conformance to the RVSM maintenance standards, including the use of calibrated and appropriate test equipment and a quality assurance program for ensuring continuing accuracy and reliability of test equipment, especially when outsourced.
- 6) The method the operator will use to verify that components and parts are eligible for installation in the RVSM system, as well as to prevent ineligible components or parts from being installed.
- 7) The method the operator will use to return an aircraft to service after maintenance has been performed on an RVSM component/system or after the aircraft was determined to be non-compliant.
- 8) Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements.
NOTE: The need for functional flight tests may be limited to only after repairs or modifications that are deemed to warrant such testing.
- 9) The maintenance requirements listed in ICAs associated with any RVSM associated component or modification.
- 10) Any other maintenance requirement that needs to be incorporated to ensure continued compliance with RVSM requirements.

C. Operator Authorization.

Provide assistance to the Operations POI as required.

D. RVSM Certification Process

- 1) Determination of Aircraft Compliance. Determine if the aircraft meets the requirements of CASR part 91 appendix G, section 2. Airworthiness Engineer will determine of aircraft compliance.
- 2) Evaluation of Operator's RVSM Maintenance Program. Review the RVSM maintenance program to ensure that it contains the elements described in chapter 2, subchapter 2.2, point D. The PMI evaluates and approves the Operator's RVSM Maintenance Program.
- 3) Evaluation of Operator's RVSM Operational Procedure. The POI evaluates and approves the RVSM Operational Procedure.
- 4) Evaluate RVSM-Knowledgeable Pilots. The applicant must provide sufficient evidence of initial and recurring pilot training as well as policies and procedures. The POI must find the operator to have adopted RVSM operating policies and/or procedures for pilots (and, if applicable, dispatchers) and ensure each pilot has adequate knowledge of RVSM requirements, policies, and procedures.
- 5) DAAO airworthiness engineer will conduct RVSM equipment inspection that installed on the aircraft.
- 6) DAAO certification team will recommend to Deputy Director for Engineering to issue the RVSM authorization after all RVSM certification documents and aircraft inspection satisfactory.

RVSM certification process is describe on RVSM certification flowchart.

E. JOB AID FOR RVSM

DAAO certification team use DAAO from 8900-4.10-01, the Job Aid for RVSM during RVSM certification program.

CHAPTER 3 AUTHORIZATIONS TO CONDUCT RVSM OPERATIONS

3.1 Issue Authorizations, Conditions, and Limitations (ACL)

The DAAO may grant a certificate holder the authority to conduct RVSM in accordance with Part 91. Authority to conduct RVSM is granted through the issuance of OpSpec. Authorizations, Conditions, and Limitations B46 is issued to certificate holders who have been granted approval to conduct RVSM.

3.2 Task Outcomes

A. Determine Aircraft RVSM Compliance.

- 1) If it is determined that an aircraft is RVSM compliant, the Sub Directorate of Engineering will complete the record with date of modification or RVSM compliance date and notify the applicant in writing.
- 2) If it is determined that an aircraft is not RVSM compliant, advise the operator/applicant by letter of the determination with an explanation.

B. Approve or Reject Aircraft Maintenance Program/Revision.

- 1) Upon approval or rejection of the applicant's RVSM program, the Sub Directorate of Maintenance will notify the applicant.
- 2) If it is determined that the RVSM maintenance program or revision meets all of the regulatory requirements, the approval process is as follows:
 - a. Approved maintenance programs shall include a list of effective pages and a revision log as future revisions are incorporated.
 - b. Indicate approval of RVSM maintenance program elements that will be incorporated into an existing accepted or approved program for each element or group of elements by the inspector's signature, date of approval, office name, number, and location.
 - c. Other approval controls may be used.
- 3) If it is determined that the aircraft maintenance program/revision is not acceptable, advise the operator/applicant by letter that the program is rejected. Return it to the operator/applicant with the reasons for the rejection.

3.3 RVSM Authorization

Deputy Director for Engineering will issue RVSM Airworthiness and Operational Authorization by form DAAO 8900-4.1-02.

CHAPTER 4 REQUIRED MONITORING

After finish initial RVSM certification, DAAO may issue temporary RVSM authorization to operator. Operators have six months from the date the temporary RVSM authorization is issued to conduct the height keeping performance monitoring.

Operators that have been issued an RVSM authorization by DAAO are required to have their aircraft RVSM height monitored, in accordance with the RVSM Minimum Monitoring Chart, every two years or within intervals of 1,000 flight hours, whichever period is longer.

Evidence of previous successful monitoring of an aircraft transfers to a new owner and/or operator and may be used to meet the monitoring requirements.

CHAPTER 5 RVSM APPROVALS DATABASE

DAAO inspector will update the RVSM approvals database periodically. After the issuance of RVSM authorization, DGCA inspector will insert the aircraft data (Aircraft Type/Model, Serial Number) and date of the approval issuance on IMSIS data base.

DAAO will inform RVSM database to Air Navigation Agency (Perusahaan Umum (Perum) Lembaga Penyelenggara Pelayanan Navigasi Penerbangan Indonesia) and Directorate Navigation, DGCA.

ATTACHMENT 1 FORMS

To : XXX
Ref. : /DKUPPU/REK/XX/XXX
Date : date month year
Expired Date : date month year and 1000 Flight Hours
Subject : RVSM Operational Approval

1. Referring to XXX request No.: XXX concerning RVSM implementation. Please be informed that based upon our evaluation, we have decided to issue a RVSM Operational Approval in accordance with ICAO Doc. 9574, CASR 91 and IG-91 RVSM.
2. This approval covers XXX operating aspect including the following aircraft model:

| No. | Aircraft Type/Series | Registration Mark | Serial Number |
|-----|----------------------|-------------------|---------------|
| 1. | XXX | PK-XXX | XXX |

3. Furthermore XXX shall maintain to comply with RVSM requirements, otherwise will be suspended

On behalf **Director of Airworthiness
and Aircraft Operation**

XXX
Deputy Director for Engineering

CC. :
- Director of Airworthiness and Aircraft Operation

To : XXX
Ref. : /DKUPPU/REK//XX/XXX
Date : date month year
Subject : RVSM Airworthiness Approval

TO WHOM IT MAY CONCERN

This is certifying that the following aircraft:

| No. | Aircraft Type/Series | Registration Mark | Serial Number |
|-----|----------------------|-------------------|---------------|
| 1. | XXX | PK-XXX | XXX |


Has been assessed and examined for RVSM readiness in accordance with applicable Service Bulletin, RVSM ICAO Document No. 9574, CASR 91 and Interim Guide (IG 91-RVSM) on implementation of a 300 m (1,000 ft) vertical separation minimum.

On behalf **Director of
Airworthiness
and Aircraft Operation**

XXX
**Deputy Director for
Engineering**

CC.:
- Director of Airworthiness and Aircraft Operation

DAAO Form 8900-4.10-01

| | | |
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|  MINISTRY OF TRANSPORTATION ROI | RVSM JOB AID-CERTIFICATION DOCUMENTS CHECKLIST SUBJECT : Evaluation of RVSM application Reference : CASR part 91, SI 8900-4.10, Applicant Name : Application date : RVSM Poin of Contact : Date operator intends to start RVSM Operations : | Team Leader : Team Members : 1. (PMI) 2. (POI) 3. (Performance and Flight Test Specialist) 4. (Avionic Specialist) |
|--|--|---|

| Aircraft M/M/S | Make/Model | N-Number | Serial Number |
|----------------|------------|----------|---------------|
| | | | |
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| ITEM | SUBJECT DOCUMENT | Date Available (dd/mm/yy yy) | STATUS (Open/Closed) | REMARKS |
|------|---|------------------------------------|-------------------------|---------|
| 1. | Application Letter (Letter of Intent) | | | |
| 2. | Aircraft Eligibility | | | |
| a. | Aircraft Flight Manual (AFM) / Type Certificate Data Sheet (TCDS) | | | |
| b. | Service Bulletins (SB), Service Letter (SL) | | | |

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|-----------|--|--|--|--|--|
| c. | Equipment Capability (Description of Aircraft Equipments) | | | | |
| 3. | Operating Procedures (Operation Manual/ Checklist) | | | | |
| a. | Pre Flight Procedures | | | | |
| i. | Review maintenance logs and forms. Ensure maintenance action has been taken to correct defects of required equipment. | | | | |
| ii. | During the external inspection of the aircraft, particular attention should be paid to the condition of the static sources etc. | | | | |
| iii. | Before takeoff, the aircraft altimeters should be set to the local altimeter (QNH) setting and should display a known field elevation within the limits specified in the aircraft operating manuals. | | | | |
| iv. | Before takeoff, equipment required for flight into RVSM airspace should be operational and malfunctions resolved. | | | | |
| b. | Procedure Prior to Airspace Entry | | | | |
| i. | List RVSM equipment that must be operational prior to RVSM airspace entry. | | | | |
| ii. | Operating Transponder. The operator should ascertain the requirement for an operating transponder in the airspace where operating. | | | | |

| In-Flight Procedures | | | | | | |
|----------------------|---|--|--|--|--|--|
| c. | | | | | | |
| i. | Flight crew should comply with aircraft operating restrictions related to RVSM airworthiness approval | | | | | |
| ii. | Emphasis should be placed on promptly setting the sub-scale on all primary and standby altimeters to 29.92 in. Hg/1013.2 hPa when passing through the Transition Altitude and rechecking the proper altimeter setting when reaching the initial cleared flight level (CFL). | | | | | |
| iii. | In level cruise it is essential that the aircraft is flown at the CFL. Clearances must be fully understood and followed. | | | | | |
| iv. | During cleared transition between levels, the aircraft should not be allowed to overshoot or undershoot the CFL by more than 150 ft. (45m). | | | | | |
| v. | Unless circumstances dictate otherwise, an automatic altitude control system should be operative and engaged during cruise, etc. | | | | | |
| vi. | An altitude alerting system should be operational. | | | | | |

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| vii. | <p>At intervals of approximately one hour, cross-checks between the primary altimeters and the standby altimeter should be made. A minimum of two primary altimeters must agree within 200 ft. or a lesser value if specified in the aircraft operating manual.</p> | | |
| viii. | <p>When operating under positive radar control, the initial altimeter cross-check should be performed after level off. On Class II navigation legs, a cross-check should be performed and recorded in the vicinity of the point where Class II navigation is begun (e.g., on coast out). The readings of the primary and standby altimeters should be recorded and available for use in contingency situations.</p> | | |
| ix. | <p>Normally the altimeter system being used to control the aircraft should be selected to provide the input to the altitude reporting transponder that is transmitting the information to ATC.</p> | | |
| x. | <p>If the pilot is notified by ATC of an assigned altitude deviation (AAD) error, which exceeds 300 ft., then the pilot should take action to return to the CFL as quickly as possible.</p> | | |

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|-------|--|--|--|--|
| xi. | Contingency Procedures after entering RVSM airspace. The pilot should notify ATC of contingencies, which affect the ability to maintain the CFL and coordinate a plan of action. | | | |
| d. | In-flight Procedures, Special Emphasis Items | | | |
| i. | Area of Operations Specific Operational Policy & Procedures, Including Standard ATC Phraseology. | | | |
| ii. | Importance of crewmembers cross checking each other to ensure that ATC clearances are promptly and correctly complied with. | | | |
| iii. | Use and limitations of standby altimeters in contingencies. | | | |
| iv. | Problems of visual perception of other aircraft at 1,000 ft. vertical separation. | | | |
| v. | Characteristics of aircraft altitude capture systems that may lead to the occurrence of overshoots | | | |
| vi. | TCAS operating characteristics in RVSM airspace, if equipped. | | | |
| vii. | Relationship between the altimetry, automatic altitude control, and transponder systems in normal and abnormal situations. | | | |
| viii. | Aircraft operating restrictions (only if applicable to the aircraft). | | | |
| ix. | For those operators authorized to conduct oceanic operations—use of Strategic Lateral Offset Procedures | | | |

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|-----------|--|--|--|--|
| | (SLOP) in oceanic airspace to mitigate the effect of wake turbulence and the effect of operational errors. | | | |
| e. | Post Flight Procedure (if any). In making maintenance log book entries against malfunctions in height keeping systems, the pilot should provide sufficient detail to enable maintenance to effectively troubleshoot and repair the system. | | | |
| 4. | Maintenance | | | |
| a. | Maintenance Program (CAMP/AAIP- components considered to be RVSM critical) | | | |
| i. | Identification of RVSM components and identification of structural areas noted as RVSM critical areas. | | | |
| ii. | The method the operator will use to ensure that all personnel performing maintenance on the RVSM system are properly trained, qualified, and knowledgeable of that specific system. | | | |
| iii. | The method the operator will use to ensure conformance to the RVSM maintenance standards including the use of calibrated and appropriate test equipment, and a quality assurance (QA) program for ensuring the continued accuracy and reliability of test equipment, especially when outsourced. | | | |

| | | | | |
|-------|--|--|--|--|
| iv. | The method the operator will use to verify that components and parts are eligible for installation in the RVSM system, as well as to prevent installation of ineligible components or parts. | | | |
| v. | The method the operator will use to return an aircraft to service after an appropriately rated person has performed maintenance on an RVSM component/system or after the aircraft was determined to be noncompliant. | | | |
| vi. | Periodic inspections, functional flight tests, and maintenance and inspection procedures with acceptable maintenance practices for ensuring continued compliance with the RVSM aircraft requirements. | | | |
| vii. | The maintenance requirements listed in the ICA associated with any RVSM associated component or modification. | | | |
| viii. | Any other maintenance requirement that the operator needs to incorporate to ensure continued compliance with RVSM requirements. | | | |
| b. | Minimum Equipment List (MEL) | | | |
| c. | Trained Personnel | | | |

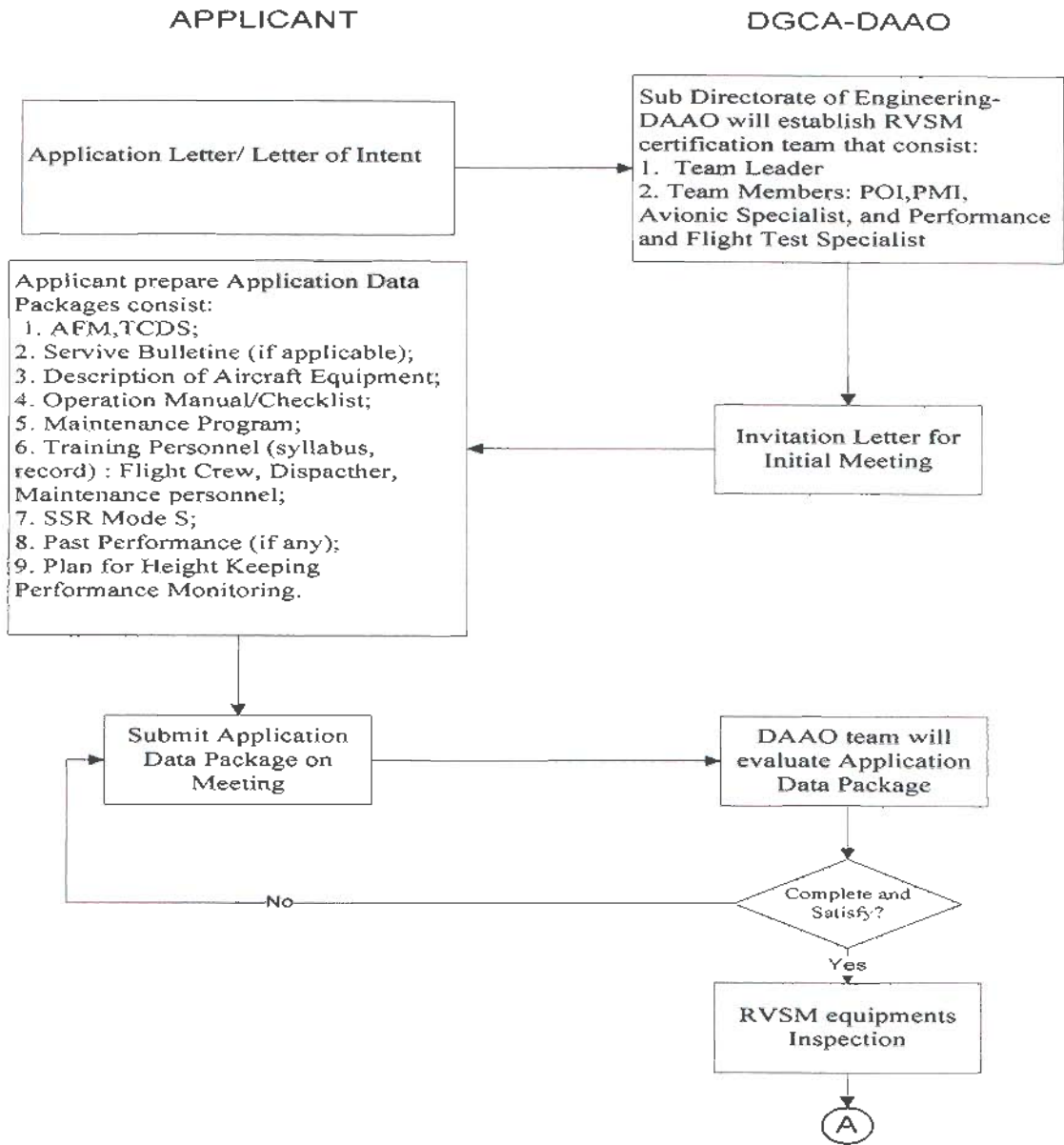
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|-----------|--|--|--|--|--|
| 5. | Training Personnel | | | | |
| a. | Flight Crew Initial and Recurrent Training Syllabus | | | | |
| b. | Dispatcher Training Syllabus | | | | |
| c. | Training/Course Certificates | | | | |
| 6. | SSR Mode S (Directorate of Air Navigation) | | | | |
| 7. | Last RVSM Operational Approval/ past performance (if any) | | | | |
| 8. | Plan for RVSM Height Keeping Performance (GMU/ADSB) | | | | |

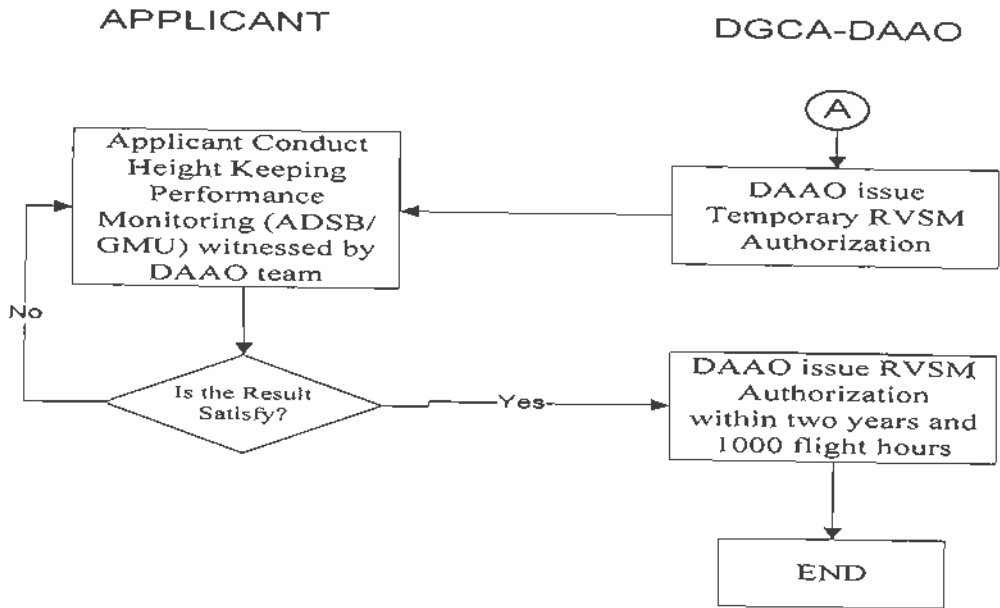
Prepared by :

Preview by :

DAAO Form 8900-4.10-02

ATTACHMENT 2 RVSM CERTIFICATION FLOW CHART





DIREKTUR JENDERAL PERHUBUNGAN UDARA

ttd.

SUPRASETYO

Salinan sesuai dengan aslinya
KEPALA BAGIAN HUKUM DAN HUMAS,



HEMI PAMURAHARJO
Pembina Tk. I (IV/b)
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