



香港特別行政區政府

民航處

Civil Aviation Department

The Government of the Hong Kong Special Administrative Region

DCA 4047B (RNP APCH) (04/2018)

**APPLICATION FOR RNP APCH OPERATIONAL APPROVAL
(LNAV AND/OR LNAV/VNAV, LP AND/OR LPV MINIMA)
(FOR HONG KONG OPERATORS)**

(For Foreign Operators: apply RNP APCH operational approval from the State of Operator or Registry)

Please complete the form in BLOCK CAPITALS using black or dark blue ink.

This form is designed to elicit all the required information from those operators requiring RNP APCH operations approvals. The completed form and supporting documentation should be submitted to Civil Aviation Department at the address listed below:

Flight Standards and Airworthiness Division

Civil Aviation Department Headquarters

1 Tung Fai Road, Chek Lap Kok

Lantau, Hong Kong

Email: ops@cad.gov.hk

Fax: (852) 2362 4250

Note: Application submission should be at least 30 days before the start of operations

- | | |
|-------------|--|
| Section I | Operator details and Signature (completion is mandatory) |
| Section II | Notes for completion |
| Section III | Operator's submissions matrix |
| Section IV | Job Aid (completion is mandatory) |



SECTION I. OPERATOR DETAILS AND SIGNATURE

1.	Name of Operator	
2.	Applicant's name	
3.	Title	
4.	Mailing Address	
5.	E-mail Address	
6.	Telephone Number/ Fax Number	
7.	Date of submission	

SIGNATURE: _____



SECTION II. NOTES FOR COMPLETION

1. Applicability

General description of the operation with references to appropriate standards and guidance material.

2. Operator's submissions matrix

Section III of this application form is to highlight the documents required for submission.

3. Documents to be included with the submission

Copies of all documents referred to in the operator's submissions matrix should be included when returning the completed application form to the Civil Aviation Department. Original documents should not be sent; photocopies are sufficient. Do not send complete manuals, only the relevant sections/pages.

FAILURE TO INCLUDE ALL RELEVANT DOCUMENTATION MAY RESULT IN A DELAY IN PROCESSING THE APPLICATION.

4. Submissions and enquiries

Email: ops@cad.gov.hk

Fax: (852) 2362 4250



SECTION III. OPERATOR'S SUBMISSIONS MATRIX

Reference documents	Submission based upon current regulatory material. Compliance statement should show how criteria have been satisfied.
Airworthiness navigation system capability compliance statement	Specify to what standards the navigation system complies.
Aircraft flight manual	Copy of the extract from the AFM showing the certification standard for PBN operation.
Navigation system FMS/autopilot interface capability	Full details of navigation system, FMS and autopilot including type, number, software version.
Navigation accuracy	Statement of certified navigation accuracy.
Navigation database	Details of the supplier of the navigation database, the supplier's approval status and, where necessary, additional quality assurance/data integrity checks applied by the operator or the supplier.
Maintenance	Details of maintenance procedures applicable to the navigation system and associated databases.
Charts	Details of the supplier of charts, supplier's approval status and, where necessary, additional quality assurance/data integrity checks applied by the operator or the supplier.
Error reporting	Outline of error reporting process and procedures for error analysis, prevention and correction, including feedback to the CAD, navigation database and chart suppliers, as well as OEMs.
Standard operating procedures	Details of applicable operating procedures. It is recommended that the manufacturer's procedures are used as a starting point.



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Operations manual	Details of dispatch requirements (navigation accuracy, MEL, RAIM, NOTAMs); RTF phraseology; SOPs; crew authorisation requirements; training and testing requirements.
Any further comments	



SECTION IV. RNP APCH JOB AID (LNAV AND/OR LNAV/VNAV, LP AND/OR LPV MINIMA)

APPLICATION TO CONDUCT RNP APCH OPERATIONS

1. Purpose of the job aid

- a) To provide information on the relevant reference documents.
- b) To provide a record of the operator application, the inspector comments and the operator follow-up action for each relevant paragraph in the reference document(s).

2. Actions recommended for the inspector and operator

- a) At the pre-application meeting, the operator and the inspector review the approval process events and establish the form and content of the approval application.
- b) The operator records references to material in company documents for each relevant paragraph in the job aid.
- c) The operator submits to the inspector the completed job aid with the application.
- d) The inspector records his/her findings for each relevant paragraph in the job aid indicating compliance or necessary corrective action.
- e) The inspector informs the operator as soon as possible when a corrective action is required.
- f) The operator provides the inspector with the revised material when so requested.



- g) The CAD provides the operator with the operations specifications (Ops Specs) and a formal approval when the tasks and documents have been completed.

3. Reference documents

<i>Publisher</i>	<i>Reference</i>	<i>Title</i>
ICAO	Annex 2	Rules of the Air
	Annex 6	Operation of Aircraft
	Doc 4444	Procedure for Air Navigation Services — Air Traffic Management
	Doc 7030	Regional Supplementary Procedures
	Doc 9613	Performance-based Navigation (PBN) Manual
FAA	AC 90-105()	Approval Guidance for RNP Operations and Barometric Vertical Navigation in the U.S. National Airspace System
	14 CFR Part 121, Subpart G	Manual Requirements
EASA	AMC 20-27	Airworthiness and Operational Criteria for RNP APPROACH (RNP APCH) Operations Including APV BARO-VNAV Operations
CASA	AC 91U-II-C-5	Navigation Authorisations — RNP APCH
	AS 91U-II-Attachment	Navigation Authorisations — APV Baro-VNAV
ICAO (SAM)	AC 91-008	Aircraft and Operators Approval for RNP Approach (RNP APCH) Operations
	AC 91-010	Aircraft and Operators Approval for Approach Operations with Vertical Guidance/Barometric Vertical Navigation (APV/Baro-VNAV)



PART 1. GENERAL INFORMATION

BASIC EVENTS OF THE APPROVAL PROCESS

	<i>Action by Operator</i>	<i>Action by Inspector</i>
1	Establish the need for the authorisation.	
2	Review the AFM, AFM supplement, TC data sheet, other appropriate documents (e.g. STCs, SBs, SLs) to determine aircraft eligibility. If necessary contact the aircraft and/or avionics OEM to confirm eligibility.	
3	Schedule a pre-application meeting with the inspector.	
4		During the pre-application meeting establish: - form and contents of the application; - documents required to support the application; - target date for the application submission; - requirement for flight validation.
5	Submit the application at least 30 days prior to startup of the planned operations.	
6		Review submission.
7	Ensure that amendments to manuals, programmes and other relevant documents are complete; provide training to flight crews, flight dispatchers and maintenance personnel; if required, conduct validation flight(s) as appropriate.	If required, participate in the validation flight(s).
8		Once the requirements have been met, issue operational approval.



PART 2. IDENTIFICATION OF AIRCRAFT AND OPERATORS

Name of Operator: _____

<i>Aircraft manufacturer, model and series</i>	<i>Registration number</i>	<i>Serial number</i>	<i>Navigation system manufacturer, model and number</i>	<i>RNP specification</i>

Date when operator intends to begin RNP APCH operations: _____

<p>Date when application received by CAD: _____</p> <p>Date of pre-application meeting: _____</p>	<p>FOR OFFICIAL USE</p>
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**PART 3. OPERATOR APPLICATION**

<i>Annex</i>	<i>Title</i>	<i>Inclusion by Operator</i>	<i>Comments by Inspector</i>
A	Request for authorisation		
B	Aircraft eligibility — airworthiness AFM, AFM revision, AFM supplement, TCDS showing that the aircraft RNAV systems are eligible.		
C	Aircraft eligibility — modifications (if applicable) Maintenance records documenting installation or modification of aircraft systems to achieve eligibility.		
D	Maintenance Navigation database maintenance practices.		
E	Minimum equipment list		
F	Training Training programmes for flight crew, flight dispatchers and maintenance personnel.		
G	Operating policies and procedures Operations manual and checklists.		

**Contents of the application to be submitted by the operator**

- compliance documentation for the aircraft/navigation systems;
- operating procedures and policies;
- sections of the maintenance manual related to navigation databases.

Note — Documents may be grouped in a single binder or may be submitted as individual documents.

PART 4. CONTENTS OF THE OPERATOR APPLICATION

#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		<i>(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)</i>	<i>(Document reference/ method)</i>	<i>(Accepted/not accepted)</i>	<i>(Status and date)</i>
1	Authorisation request Statement of intent to obtain authorisation.				



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
2.	Aircraft/navigation system eligibility Documents that establish eligibility.	5.3.2.2 5.3.2.3.1			
3	Training Details of training programmes.	5.3.2.3.2 5.3.5			
4	Operating policies and procedures Operations manual and Checklists.	5.3.2.3.3			
5	Maintenance practices Document navigation database maintenance practices.	5.3.2.3.5 5.3.6 (Section A) 5.3.6 (Section B)			
6	MEL update	5.3.2.3.4			



PART 5. OPERATING PROCEDURES

#	Topic	Specific ICAO reference <i>(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)</i>	Operator compliance description <i>(Document reference/ method)</i>	Inspector disposition/ comments <i>(Accepted/not accepted)</i>	Follow-up by Inspector <i>(Status and date)</i>
1	Flight planning	—	—	—	—
1a	Verify that the aircraft and crew are approved for RNP APCH operations to LNAV and/or LNAV/VNAV, LP and/or LPV minima.	5.3.4 (Section A) (LNAV and/or LNAV/VNAV) 5.3.4.1 (Section B) (LP and/or LPV)			
1b	Verify RAIM and/or SBAS availability.	5.3.4.1.3 (Section A) 5.3.4.2 (Section A) 5.3.4.3 (Section B)			
1c	Verify that the navigation database is current.	5.3.4.1.1 (Section A) 5.3.4.1.2 a) (Section A) 5.3.4.2.1 (Section B) 5.3.4.2.2 (Section B)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
1d	Verify the FPL: “R” and “B” (LPV only) should appear in field 10 and PBN/S1 or PBN/S2 (LNAV/VNAV only) in field 18.	5.3.4.1.1 (Section A) 5.3.4.2.1 (Section B)			
2	Prior to commencing procedure	—	—	—	—
2a	Verify that the correct procedure is loaded.	5.3.4.3.1 (Section A) 5.3.4.4.1 (Section B)			
2b	Cross-check the chart with the RNAV system display.	5.3.4.3.2 (Section A) 5.3.4.4.1 (Section B)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
2c	Verify the GNSS sensor in use (only multi-sensor systems).	5.3.4.3.3 (Section A)			
2d	Input the barometric altimeter setting (only LNAV/VNAV requires barometric input).	5.3.4.3.4 (Section A)			
2e	Perform a RAIM availability check if ETA is more than 15 minutes different from the FPL ETA (only for ABAS).	5.3.4.3.5 (Section A)			



#	<i>Topic</i>	<i>Specific ICAO reference</i> <i>(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)</i>	<i>Operator compliance description</i> <i>(Document reference/ method)</i>	<i>Inspector disposition/ comments</i> <i>(Accepted/not accepted)</i>	<i>Follow-up by Inspector)</i> <i>(Status and date)</i>
2f	Do not modify the flight plan in the RNAV system after ATC heading assignment until a clearance is received to re-join the route or a new clearance is confirmed. Manual entry of coordinates within the terminal area is not permitted. "Direct to" clearances accepted up to IF, provided that the resulting track change at the IF does not exceed 45 degrees.	5.3.4.3.6 (Section A) 5.3.4.4.2 (Section B)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		<i>(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)</i>	<i>(Document reference/ method)</i>	<i>(Accepted/not accepted)</i>	<i>(Status and date)</i>
2g	Do not modify the final approach segment.	5.3.4.3.7 (Section A)			
2h	Use Vector to Final (VTF) to respect ATC clearances when appropriate.	5.3.4.4.3 (Section B)			
3	During procedure	—	—	—	—
3a	Establish the aircraft on the final approach course before starting descent.	5.3.4.4.1 (Section A) 5.3.4.5.4 (Section B)			
3b	Verify that the approach mode is activated 2 NM prior to FAF/FAP.	5.3.4.4.2 (Section A) 5.3.4.5.3 (Section B)			
3c	Use an appropriate display.	5.3.4.4.3 (Section A) 5.3.4.5.5 (Section B)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
3d	Discontinue the approach if: <ul style="list-style-type: none"> • the navigation display is flagged invalid; • loss of integrity alert; • loss of integrity alerting function prior to the FAF; • FTE is excessive. 	5.3.4.4.4 (Section A) 5.3.4.5.7 (Section B) 5.3.4.5.8 (Section B)			
3e	Do not use the RNP system in missed approach if the: <ul style="list-style-type: none"> • RNP system is not operational; or • missed approach is not loaded from the database. 	5.3.4.4.5 (Section A)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		<i>(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)</i>	<i>(Document reference/ method)</i>	<i>(Accepted/not accepted)</i>	<i>(Status and date)</i>
3f	Follow the route centre line within 0.5/0.15/0.5 NM.	5.3.4.4.6 (Section A)			
3g	If Baro-VNAV is used, follow vertical path ± 22 m (± 75 ft).	5.3.4.4.7 (Section A)			
3h	Execute a missed approach if the lateral or vertical deviations exceed the limits in 3f and 3g above (LNAV and LNAV/VNAV) or if excessive deviations are encountered and cannot be corrected in time (LP and LPV).	5.3.4.4.8 (Section A) 5.3.4.5.9 (Section B)			



#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
4	General operating procedures	—	—	—	—
4a	Advise ATC if unable to meet the requirements for an RNP APCH.	5.3.4.5.1 (Section A) 5.3.4.6.1 (Section B)			
4b	Comply with the manufacturer's instructions/procedures.	5.3.4.5.2 (Section A) 5.3.4.6.2 (Section B)			
4c	If the missed approach is based on conventional means, appropriate navigation equipment must be installed and serviceable.	5.3.4.5.3 (Section A) 5.3.4.6.3 (Section B)			
4d	Use FD or AP if available.	5.3.4.5.4 (Section A) 5.3.4.6.4 (Section B)			



PART 6. CONTINGENCY PROCEDURES

#	Topic	Specific ICAO reference	Operator compliance description	Inspector disposition/ comments	Follow-up by Inspector
		(Doc 9613 fourth edition Volume II, Part C, Chapter 5, Section A and/or Section B, where applicable)*	(Document reference/ method)	(Accepted/not accepted)	(Status and date)
1	Contingencies	—	—	—	—
1a	Advise ATC if unable to comply with the requirements for RNP APCH.	5.3.4.6.1 (Section A) 5.3.4.7.2 (Section B)			
1b	Air-ground communications failure.	5.3.4.6.2 (Section A) 5.3.4.7.3 (Section B) (Doc 4444 Chapter 15, 15.3)			
*All references are to Doc 9613, Volume II, Part C, Chapter 5, unless otherwise indicated.					



Personal Data Collection Statement

1. Purposes of Collection

The personal data provided by means of this form, including all the supporting documents included in the application, will be used by Civil Aviation Department for the following purposes:

- a. Processing of your application in this form;
- b. Carrying out relevant provisions of the Civil Aviation Ordinance (Chapter 448) and its subsidiary Orders / Regulations;
- c. Assisting in the enforcement of any other Ordinances and Regulations by other Government Bureaux and Departments;
- d. For communication purposes between Civil Aviation Department and yourself;
- e. For validation and verification of authenticity of your supporting documents in association with the application;
- f. For statistics and research purposes on the condition that the resulting statistics or results will not be made available in a form which will identify the data subjects.

It is obligatory for you to supply the personal data as required in this form. If you fail to supply the required data, we may not be able to process your application.

2. Classes of Transferees

The personal data you provided by means of this form may be disclosed to:

- a. Other Government Bureaux and Departments for the purposes mentioned in paragraph 1 above;
- b. Other Contracting States of the International Civil Aviation Organisation and Civil Aviation Authorities for the purpose mentioned in paragraph 1 above;

c. Other organisations or agencies for execution of their duties as required by Civil Aviation Department.

3. Access to Personal Data

You have a right of access and correction with respect to personal data as provided for in Sections 18 and 22 and Principle 6 of Schedule 1 of the Personal Data (Privacy) Ordinance. Your right of access includes the right to obtain a copy of your personal data provided by this form.

4. Enquiries

Enquiries concerning the personal data collected by means of this form, including the making of access and correction, should be addressed to :

Flight Standards Office
Flight Standards and Airworthiness Division
Civil Aviation Department Headquarters
1 Tung Fai Road
Hong Kong International Airport
Lantau, Hong Kong

(Attn.: Safety Officer (Technical Support))

Anti-bribery Reminder:

Anyone, while having dealings of any kind with the Civil Aviation Department (CAD), should not offer advantage to the CAD officers, or else he may commit an offence under section 4(1) and/or section 8 of the Prevention of Bribery Ordinance (Chapter 201 of Laws of Hong Kong), and be liable to a maximum penalty of a fine of \$500,000 and imprisonment for 7 years.