

## APPLICATION FOR P-RNAV OPERATIONAL APPROVAL OR RENEWAL

Applicants are strongly advised to read the 'P-RNAV Notes for Completion' before completing the form.  
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 Precision Area Navigation (P-RNAV) operations approvals. The completed form and supporting documentation should be submitted to the Intelligence, Strategy and Policy department of the Safety and Airspace Regulation Group at the address listed in the 'Notes for Completion'.

|             |               |                                      |                      |
|-------------|---------------|--------------------------------------|----------------------|
| Section I   | Page 1        | Operator/Airframe Details            | Completion mandatory |
| Section II  | Page 2        | P-RNAV Notes For Completion          |                      |
| Section III | Page 2        | Signature Block                      | Completion mandatory |
| Section IV  | Pages 3 to 10 | Operator's P-RNAV Submissions Matrix | Completion mandatory |

### SECTION I OPERATOR/AIRFRAME DETAILS

|                                                                                                                                                                                                                                               |                  |              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------------|
| <b>1 Applicant Details - required for all Approval requests</b>                                                                                                                                                                               |                  |              |
| Please give the official name and business or trading name(s), address, mailing address, e-mail address and contact telephone/fax numbers of the applicant. Note: For AOC holders - company name, AOC number and e-mail address will suffice. |                  |              |
| <b>2 Aircraft Details - required for all Approval requests</b>                                                                                                                                                                                |                  |              |
| Aeroplane type(s), series and registration mark(s).                                                                                                                                                                                           |                  |              |
| Aeroplane Type                                                                                                                                                                                                                                | Aeroplane Series | Registration |
|                                                                                                                                                                                                                                               |                  |              |
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## SECTION II P-RNAV NOTES FOR COMPLETION

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
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| <b>1 Applicability</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <p>P-RNAV is a European RNAV specification with a required track keeping accuracy of <math>\pm 1</math> NM for 95% of the flight time, together with advanced functionality and a high integrity navigation database. P-RNAV capability can be achieved using inputs from DME/DME or GNSS and/or INS. Typically P-RNAV can be used to fly P-RNAV designed SIDs and STARs in Aerodrome Terminal Control Airspace.</p> <p>The requirements for Operator Approval to carry out P-RNAV operations are laid out in JAA TGL 10 (available via the Eurocontrol Website - see below).</p> <p>Additional Guidance can be found in:<br/>         FODCOM 04/2008<br/>         AIC 125/2006 (Yellow 226) - Introduction of P-RNAV Procedures in UK Terminal Airspace<br/>         ICAO Doc 9613 Manual of Performance-Based Navigation<br/>         ICAO Doc 8168 Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS)</p> <p>Other useful information is provided on the Eurocontrol Website: <a href="http://www.ecacnav.com/prnav">http://www.ecacnav.com/prnav</a>.</p> |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <b>2 Operator's P-RNAV Submissions Matrix</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <p>Section IV of this application form is the Operator's P-RNAV Submissions Matrix. All applicants should complete Column 4 of this matrix in full. If more than one type of aircraft/fleet is included in a single application a completed matrix should be included for each aircraft/fleet.</p> <p><b>Failure to complete the P-RNAV Submissions Matrix may result in a delay in processing your application.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <b>3 Documents to be included with the application</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <p>Copies of all documents referred to in Column 4 of the Operator's P-RNAV Submissions Matrix should be included when returning the completed application form to the Civil Aviation Authority. Original documents should not be sent, photocopies are sufficient. Do not send complete manuals, only the relevant sections/pages will be required.</p> <p><b>Failure to include all relevant documentation may result in a delay in processing your application.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <b>4 Submissions and Enquiries</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| <table border="0"> <tr> <td>Address for submissions:</td> <td>Contact details for enquiries:</td> </tr> <tr> <td>Civil Aviation Authority</td> <td></td> </tr> <tr> <td>Intelligence, Strategy and Policy</td> <td>Tel: +44 (0) 1293 573909</td> </tr> <tr> <td>Safety and Airspace Regulation Group</td> <td>Fax: +44 (0) 1293 573991</td> </tr> <tr> <td>Aviation House</td> <td></td> </tr> <tr> <td>Gatwick Airport South</td> <td>E-mail: <a href="mailto:jerry.stubbs@caa.co.uk">jerry.stubbs@caa.co.uk</a></td> </tr> <tr> <td>RH6 0YR</td> <td></td> </tr> <tr> <td>E-mail: <a href="mailto:FOPAdmin@caa.co.uk">FOPAdmin@caa.co.uk</a></td> <td></td> </tr> </table>                                                                                                                                                                                                                                                                                                                                                                                                       | Address for submissions:                                                   | Contact details for enquiries: | Civil Aviation Authority |  | Intelligence, Strategy and Policy | Tel: +44 (0) 1293 573909 | Safety and Airspace Regulation Group | Fax: +44 (0) 1293 573991 | Aviation House |  | Gatwick Airport South | E-mail: <a href="mailto:jerry.stubbs@caa.co.uk">jerry.stubbs@caa.co.uk</a> | RH6 0YR |  | E-mail: <a href="mailto:FOPAdmin@caa.co.uk">FOPAdmin@caa.co.uk</a> |  |
| Address for submissions:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Contact details for enquiries:                                             |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| Civil Aviation Authority                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| Intelligence, Strategy and Policy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Tel: +44 (0) 1293 573909                                                   |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| Safety and Airspace Regulation Group                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Fax: +44 (0) 1293 573991                                                   |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| Aviation House                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| Gatwick Airport South                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | E-mail: <a href="mailto:jerry.stubbs@caa.co.uk">jerry.stubbs@caa.co.uk</a> |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| RH6 0YR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |
| E-mail: <a href="mailto:FOPAdmin@caa.co.uk">FOPAdmin@caa.co.uk</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                            |                                |                          |  |                                   |                          |                                      |                          |                |  |                       |                                                                            |         |  |                                                                    |  |

## SECTION III SIGNATURE BLOCK

|                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signature: .....                                                                                                                                                                                                 |
| Name (BLOCK LETTERS):.....                                                                                                                                                                                       |
| Appointment:.....                                                                                                                                                                                                |
| Date: .....                                                                                                                                                                                                      |
| Please note that a <b>minimum</b> of 30 working days will normally be required to check and confirm the information given above - if data is missing or omitted the process may take <b>considerably</b> longer. |

SECTION IV APPLICANT'S P-RNAV SUBMISSIONS MATRIX

| Main Heading                                                               | Expanded areas to be addressed by application                                                                                                                                                                                                                                                                                                                   | Sub-requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Operator's Operations Manual Reference or Document Reference |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| <b>1.0 Reference Documents used in compiling submission</b>                | <p>Your submission should be based on current up to date regulatory material.</p> <p>You should publish a compliance statement showing how the criteria of TGL 10 have been satisfied.</p>                                                                                                                                                                      | <p>TGL 10<br/>ICAO Doc 9613<br/>ICAO Doc 8618 PANS-OPS<br/>AIC 125/2006 (Yellow 226)<br/>FODCOM 04/08</p>                                                                                                                                                                                                                                                                                                                                                                          |                                                              |
| <b>2.0 Airworthiness Navigation System Capability compliance statement</b> | <p>Give reference to Navigation System capability, e.g. GNSS stand-alone equipment should be approved in accordance with ETSO- C129a.</p> <p>Is FMGS/FMS compliant with TGL 10 for P-RNAV operations?</p> <p>Is FMGS/FMS compliant with performance requirements of ED-75/DO-236 for RNP RNAV operations? (e.g. All Airbus 320/321/ 330/340 are compliant.)</p> | <p>ETSO-C129a/ETSO-C145 (In CS-ETSO on the EASA website <a href="http://www.easa.europa.eu">http://www.easa.europa.eu</a>.)</p> <p>TGL 10</p> <p>TGL 10</p>                                                                                                                                                                                                                                                                                                                        |                                                              |
| <b>2.1 Aircraft Flight Manual (AFM)</b>                                    | A statement or copy of the AFM showing the aircraft certification standard for RNAV operations.                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                              |
| <b>2.2 Navigation System FMS/Autopilot interface capability</b>            | Full details of the Navigation System including type and number, e.g. specific capability.                                                                                                                                                                                                                                                                      | <p>TGL 10</p> <ul style="list-style-type: none"> <li>• Fly by waypoint (WP).</li> <li>• Fly over WP.</li> <li>• Direct to function.</li> <li>• Define vertical path (FPA to a WP).</li> <li>• At or above Altitude constraint.</li> <li>• At or below Altitude constraint.</li> <li>• At Altitude constraint.</li> <li>• Vertical Path control (provide guidance from WP to a vertically constrained WP).</li> <li>• Entire procedures loadable from aircraft database.</li> </ul> |                                                              |