

ICAO Engine Emissions Databank Record of Changes

Issue	Date of publication	Detail of Changes
28	23-Dec-2020	<p>Issue 28 implemented on website</p> <p>NEW: First database version with nvPM emissions added, as reported by engine manufacturers. Amended database structure to accommodate nvPM emissions in a separate data worksheet. Note that new UIDs were assigned to engines for which nvPM information was added.</p> <p>New (and/or revised) engine data for smoke and gaseous emissions: P&W: <u>PW1100G and PW1400G with TALON X, Block D combustor:</u> PW1133G-JM, PW1133GA-JM, PW1130G-JM, PW1129G-JM, PW1127G-JM, PW1127GA-JM, PW1127G1-JM, PW1124G-JM, PW1124G1-JM, PW1122G-JM, PW1431G-JM, PW1431GA-JM, PW1431GH-JM, PW1428G-JM, PW1428GA-HM, PW1428GH-JM. <u>PW1200G and PW1400G with TALON X, Block C combustor:</u> PW1217G, PW1215G, PW1431G-JM, PW1431GA-JM, PW1431GH-JM, PW1428G-JM, PW1428GA-JM, PW1428GH-JM.</p> <p>PWC: PW814GA, PW815GA. CFM: CFM56-7B26/3 (Research Measurement) provided by Swiss FOCA for nvPM and gaseous emissions, see remarks columns for details.</p> <p>Harmonisation and update of engine manufacturer designations. Updates of "Current Engine Status", "Data Superseded" and "Superseded by UID No" information.</p>
27	17-Aug-2020	<p>Issue 27 implemented on website</p> <p>New (and/or revised) engine data added: GE: GE90-110B1, -113B, -115B Passport20-19BB1A P&W: PW1215G, -1217G RR: Trent XWB-97 Note: Provision of nvPM emissions is intended for the next issue of the EEDB. Last issue of the databank in both old and new format. Next issue will use new format only.</p>
26	20-Sep-2019	<p>Issue 26B implemented on website</p> <p>Corrections of "Superseded by UID" information for engines 6RR042, 13GE158, 18CM084-18CM087 Current Engine Status updated for engines 6AL013, 6AL016, 6AL020, 13AL017, 11RR049-11RR054, 12RR055-12RR069, 18RR082 Corrected colour codes for some engines Corrected and harmonised data formats in a number of cells, including for UIDs 1RR011, 1KK005, 6AL019, 8GE115-8GE119, 17CM083 EEDB optionally presented in new format to facilitate filtering and database operations</p>

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	27-May 2019	<p>Issue 26A implemented on website</p> <p>minor updates of references and test dates in the datasets of PW1500, PW1900 and LEAP-1B</p>
	24-May 2019	<p>Issue 26 implemented on website</p> <p>New (and or revised) engine data added:</p> <p>RRD: BR 700-710D5-21</p> <p>CFMI: LEAP-1A 24, 24E1, 26, 26E1, 26CJ, 29, 29CJ, 35A, 33, 33B2, 32, 30 LEAP-1B 21, 23, 25, 27, 28, 28B2, 28B1, 28B3, 28B2C, 28BBJ1, 28BBJ2</p> <p>P&W: PW1500 1519G, 1521G, 1521GA, 1524G, 1525G PW1900 1919G, 1921G, 1922G, 1923G, 1923GA</p> <p>Record UID 14IA018 (V2531-E5) was reset to in-production (no colour code)</p>
25	30-May-2018	<p>Issue 25A implemented on website</p> <p>Data correction on Trent 1000-TEN and Trent 7000 Column [CQ] changed</p>
	29-May-2018	<p>Issue 25 implemented on Website</p> <p>New (revised) engine data added:</p> <p>P&W: PW814GA, PW815GA R-R: Trent 1000 TEN -AE3, TEN -C3, TEN -D3, TEN -G3, TEN -H3, TEN -J3, TEN -K3, TEN -L3, TEN -M3, TEN -N3, TEN -P3, TEN -Q3, TEN -R3 R-R: Trent 7000-72, Trent 7000-72C</p> <p>Addition H/C ration information on various IA and P&W engines PW6122A and PW6124A marked out of production Changes in manufacturer names</p>
24	17-Nov-2017	<p>Issue 24 implemented on the website</p> <p>New (revised) engine data added:</p> <p>CFM: LEAP 1B25; LEAP 1B27; LEAP 1B28; LEAP 1B28/B2 RR: Trent XWB-75, -79, -79B, -84, and -97; Trent 970, 970B, 972, 972E Honeywell: HTF7700L (AS907-2-1s) P&W: PW1133G, PW1133GA, PW1130G, PW1129G, PW1127G, PW1127GA, PW1127G1, PW1124G, PW1124G1, PW1122G</p> <p>Formatting corrections of superseded data</p>
23	01-Jun-2017	<p>Issue 23C implemented on website</p> <p>Formatting corrections of some UID fields for consistency</p>
	07-Apr-2017	<p>Issue 23B implemented on website</p> <p>New (revised) engine data added:</p> <p>CFM: LEAP 1A26/26E1; LEAP 1A35A / 33 / 33B2 / 32 / 30 GE: revised SN data for Genx-1B/P2 engines and GENx2B67/P</p>

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	18-Nov-2016	<p>Issue 23 implemented on website</p> <p>New (revised) engine data added:</p> <ul style="list-style-type: none"> • GE: Genx-1B76/P2, Genx-1B76A/P2 • P&W: PW1525G, PW1524G, PW1521G, PW1519G; PW307A; PW814GA, PW815GA <p>Formatting corrections and "out of production" status update</p>
22	05-Feb-2016	<p>Issue 22 implemented on website</p> <p>New (revised) engine data added:</p> <ul style="list-style-type: none"> • P&W: PW1127G, PW1127G1, PW1130G, PW1133G, PW133G1, PW 307D <p>UID 14IA018: Engine Identification corrected to read V2531-E5</p> <p>Formatting corrections of some "test date" entries</p>
21	10-Feb-2015	<p>Issue 21B implemented on website</p> <p>New (revised) engine data added:</p> <ul style="list-style-type: none"> • P&W: PW308C Build Standard 1289
	31-Jan-2015	<p>Issue 21A implemented on website</p> <p>New (revised) engine data added:</p> <ul style="list-style-type: none"> • Honeywell: HTF7500E (AS907-3-1E-A1); HTF7500E (AS907-3-1E-A2); HTF7500E (AS907-3-1E-A3); HTF7350 (AS907-2-1A) • IAE: V2531-E5 SelectOne™ • RR plc: Trent 768; Trent 772; Trent XWB-75; Trent XWB-79; Trent XWB-79B; Trent XWB-84 <p>Superseded data: 11HN002 by 11HN003, 11HN004 by 11HN005</p> <p>Formatting corrections on UID 13GE157, 13GE158;</p>
20	07-Mar-2014	<p>Issue 20 B implemented on Website</p> <p>New (revised) engine data added:</p> <ul style="list-style-type: none"> • RR Corp.: AE 3007/C2 <p>Record for Genx-1B78/P2 removed; this engine never went into production</p> <p>UID number correction (UID 13GE156 --> 13GE157; UID GE13GE157 --> 13GE158)</p> <p>Formatting corrections in Field [Eng Type] correction of misprinted values in dataset 13AA008</p>

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	19-Feb-2014	<p data-bbox="555 266 967 295">Issue 20 A implemented on Website</p> <p data-bbox="555 324 911 353">New (revised) engine data added:</p> <ul data-bbox="600 394 1378 701" style="list-style-type: none"> <li data-bbox="600 394 1075 423">• Aviadgatel: PS-90A; PS-90A1; PS-90A2 <li data-bbox="600 425 1203 454">• ZMBK: D36 series 4A; D-439-148 F1; D-436-148-F2 <li data-bbox="600 456 1378 607">• GE: <ul data-bbox="695 490 1378 607" style="list-style-type: none"> <li data-bbox="695 490 1334 546">• GEnx-1B54/P2; GEnx-1B58/P2; GEnx-1B64/P2; GEnx-1B67/P2; GEnx-1B70/72/P2; GEnx-1B70/75/P2 <li data-bbox="695 548 1378 607">• GEnx-1B70/P2; GEnx-1B74/75/P2; GEnx-1B75/P2; GEnx-1B78/P2; GEnx-2B67B; GEnx-2B67/P <li data-bbox="600 645 1378 701">• Minor amendment to correct data or data format (e.g.addition of Fuel mass for LTO cycle on UID11BR011)
19	15-Apr-2013	<p data-bbox="555 779 935 808">Issue 19 implemented on Website</p> <p data-bbox="555 837 911 866">New (revised) engine data added:</p> <ul data-bbox="600 907 1378 1346" style="list-style-type: none"> <li data-bbox="600 907 1378 987">• GE: GEnx-1B54/P1; GEnx-1B58/P1; GEnx-1B64/P1; GEnx-1B67/P1; GEnx-1B70/P1; GEnx-1B70/72/P1; GEnx-1B70/75/P1; GEnx-1B74/75/P1; GEnx-1B75/P1 <li data-bbox="600 990 911 1019">• P&W: PW4060; PW4062 <li data-bbox="600 1021 1094 1050">• RRD: BR700-725A1-12 revised datasheet <li data-bbox="600 1052 1318 1108">• RR: Trent 1000-A; -C; D; E; -G; -H (revised data for Package B engines) <li data-bbox="600 1111 1378 1167">• RR: Trent 1000-A2; -C2; D2; E2; -G2; -H2; -J2; -K2; L2 (Package C1 engines) <li data-bbox="600 1169 1378 1285">• Minor amendment to correct entries (originally wrongly entered in reverse) for 'significant numbers' and 'number of tests' for some 11 series UID engines [no consequence for calculation of characteristic values] <li data-bbox="600 1288 1378 1346">• Addition of new columns [CY], [CZ], [DA] to indicate NOx compliance paragraph for in-production engines <p data-bbox="555 1384 1388 1464">Addition of certificated NOx compliance paragraph for all in-production engines in the [Remarks] field to show compliance with the CAEP/6 NOx production rule.</p>
18	31-Jan-2012	<p data-bbox="555 1570 959 1599">Issue 18 A implemented on Website</p> <p data-bbox="555 1601 810 1630">New engine data added:</p> <p data-bbox="555 1632 1388 1727">CFMI: CFM56-7B20E; -7B22E; -7B222E/B1; -7B24E; -7B2E/B1; CFM56-7B26E; -7B26E/B1; -7B26E/B2; -7B26E/F; -7B26E/B2F; CFM56-7B27E; -7B27E/b1; -7B27E; -7B27E/B3; -7B27E; -7B27AE; CFM56-7B27E; -7B27E/F; -7B27E; -7B27E/B1F</p> <p data-bbox="555 1729 1166 1758">GE: Genx-1B54; -1B58; -1B64; -1B67; -1B70; GEnx-2B67</p> <p data-bbox="555 1760 1270 1789">GE: CF34-10A16; -10A18; -10E5; 10E6; -10E5A1; -10E6A1; -10E7;</p> <p data-bbox="555 1792 699 1821">CF34-10E7-B</p> <p data-bbox="555 1823 951 1852">Honeywell: AS907-1-1A; AS907-2-1G</p> <p data-bbox="555 1854 715 1883">P&W: PW307A</p> <p data-bbox="555 1886 895 1915">PowerJet: SaM146-1S17; -1S18</p> <p data-bbox="555 1917 799 1946">RRD: BR700-725A1-12</p> <p data-bbox="555 1948 935 1977">RR: Trent 1000-A; -C; -D; -E; -G; -H</p> <p data-bbox="555 1980 715 2009">RR: TAY611-C</p>

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17	10-Dec-2010	<p>Issue 17A implemented on Website</p> <p>New engine data added: GE: CF34-10E5; -E5A1; -E6; -E6A1 and -E7 (with Block 2 engine modifications) IAE: V2522-A5; V2524-A5; V2527-A5; -A5E & -A5M; V2730-A5; V2533-A5 (all with SelectOne upgrade package) PW: PW4074D; 4077D; 4084D and 4090 (all with Floatwall combustor) RR-NA :AE3007A2 (with Type 3 combustor) Incorporation of margins to ICAO CAEP/8 NOx standard Updates to out-of-production status</p>
16	05-Feb-2009	<p>Issue 16A implemented on Website</p> <p>New engine data added: EA: GP7270; GE: GE90-76; -77; -85 & -90 (all with 2D turbomachinery & Performance Enhanced Combustor (PEC)) GE: GE90-76; -77; -85; -90 & -94 (all with 3D turbomachinery and Performance Enhanced Combustor (PEC)) PW: PW4164-1D; PW4168-1D; PW4168A-1D; PW4170 with Talon II combustor RR: Trent 972-84 with Phase 5 tiled combustor Addition of Smoke Number individual mode data (where available) Minor editorial corrections</p>
15	07-Apr-2008 08-Oct-2007 16-July-2007	<p>Issue 15-C implemented on Website.</p> <p>Addition of new column [BJ] to indicate margin to CAEP/6 NOx standard for existing engine entries. No new engine entries Issue 15-B implemented on Website. Minor amendment to correct entries (originally wrongly entered in reverse) for 'number of engines' and 'number of tests' for 8 series new engines; [no consequence for calculation of characteristic values] Issue 15-A implemented on website. Many new engine datasets and some corrections to existing entries. See Databank for details</p>
14	06-Jun-2005	<p>Issue 14 implemented on website.</p> <p>New datasheets added: 7PW083-PW6122A; 7PW084 - PW6124A; 7GE097-GE90-110B1; 7GE098 - GE90-113B; 7GE099 - GE90-115B</p>
13	01-Oct-2004	<p>Issue 13 implemented on Website.</p> <p>DataBank transferred from QinetiQ to UK CAA Website.</p>
	09-Sep-04	New engine data added - PW4164 and PW4168A.
12	17-Mar-04	<p>Issue 12 implemented on Website.</p>
	09-Mar-04	New engine data added - CFM56 5C2/P, 5C3/P, 5C4/P, 5B8/P, 5B9/P, 5B9/2P 1CM006 engine identification changed from CFM56-3C (rerated) to CFM56-3C-1 (rerated) 1CM004, 005, 006 - additional note, number 4, added.
	27-Feb-04	New engine data added - PW306A, PW306B, PW308A, PW308C.

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	23-Dec-03	New engine data added - BR700-710-C4-11
11	28-Nov-03	Issue 11 implemented on Website.
	27-Nov-03	New engine data added - Tay 611-8C
	02-Sep-03	Correction to engine identifier for UID 1RR001, M54H corrected to M45H Correction to data for engines UID's 3GE067 to 3GE079 to include note showing idle data calculated at normal idle setting rather than 7%.
	01-Sep-03	New engine data added - CF34-8C1 Block 1
10	19-May-03	Issue 10 implemented on Website. No new data at this time.
	12-Feb-03	Data in columns CR and CS changed to date format (previously a mixture of date and text formats).
	04-Feb-03	New engine data added - CF34-8C5, -8E2, -8E5, -8E5A1 New engine data added - CFM56-5B7/P CF6-80E series UID No's 2GE050, 2GE051 and 4GE081 not currently produced with low emissions combustor (1862M39), marked as out of production.
	28-Nov-02	New engine data added - AE3007 family, 20 new entries.
9	31-Jul-02	New engine data added - Trent 556-61 with Phase 5 tiled combustor
	17-Jul-02	New engine data added - GE90-76B, -77B, -85B, -90B, -94B with turbomachinery incorporating 3D aero
	02-Jul-02	Further format changes. No new data at this time.
	27-Mar-02	Rolls-Royce Corporation AE3007C1 added
8	19-Dec-01	New engine data added - GE90-76B
	27-Nov-01	New engine data added - CF34-3B, CF34-8C1, CF6-80E1A3 Changes to background notes, column descriptions and data base format (data requirements and associated data)
7	14-Nov-00	New engine data added - PW4098
	27-Oct-00	New engine data added - PW4168 with TALON II combustor.

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6	02-May-00	New engine data added - PW4X58 with TALON II combustor.
5	29-Feb-00	New engine data added - Trent 895 New engine data added - RB211-535E4 and -535E4B with phase 5 combustor
4	31-Dec-99	New engine data added - AE3007A, AE3007A1 series (A1, A1/1, A1/2) New engine data added - PW2037 and PW2040 - revised to add second engine test New engine data added - BR700-710A1-10, -710A2-20.
3	16-Nov-99	New engine data added - BR700-715A1-30, -715B1-30 and 715C1-30 with improved fuel injectors. New engine data added - JT8D-217, -217A, -217C, -219 with E-Kit combustors.
2	08-Feb-99	Engine UID 2PW062, CO idle EI and Dp/Foo average were reversed. This has been corrected. New engine data added. Spey 555, standard fuel pump. RB211-524G-T and -524 H-T, BR700-715A1-30, -715B1-30 and -715C1-30 New engine data added. CFM56-5A4, -5A5. CFM56-5B2/2P, -5B3/2P CFM56-7B20/2, -7B22/2, -7B24/2, -7B26/2, -7B27/2. CF6-80E1A4 standard combustor, CF6-80E1A4 low emissions combustor PW4168A
1	10-Mar-98	First full issue of the databank on the internet