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Flight Standardization Board (FSB) Report

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Honda Aircraft Company
HA-420

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RECORD OF REVISIONS

Revision Number	Sections	Pages Affected	Date
Original	All	All	01/15/2016
1	8.2.6, Appendix 4	17, 24	09/28/2016

HIGHLIGHTS OF CHANGE

Original Issue Established Type Rating
Revision 1 Added Electronic Checklist

CONTENTS

SECTION **PAGE**

1. PURPOSE AND APPLICABILITY

1.1 Primary Purpose. The primary purpose of this report is to specify Federal Aviation Administration (FAA) master training, checking, and currency requirements applicable to flightcrews operating Honda Aircraft Company HA-420 aircraft. This report can assist Title 14 of the Code of Federal Regulation (14 CFR) part 91 subpart K (91K) fractional ownership program, part 135 air carrier operators, and part 142 training centers in the development and approval of the training programs by their Principal Operations Inspector (POI) and FAA Training Center Program Managers (TCPM).

NOTE: All regulatory references within this report are found in 14 CFR, unless otherwise indicated.

The guidelines in this report also apply to operations inspectors, Aircrew Program Managers (APM), 14 CFR part 135 air carrier check pilot and instructors, airline transport pilots instructing in air transportation service, certificated flight and ground instructors, aircrew program designees, Training Center Evaluators (TCE), and part 61, 135, 141, and 142 training providers.

Provisions of this report:

a) Identify Pilot “type rating” requirements assigned to the Honda Aircraft Company HA-420,
b) Describe any unique requirement applicable to initial, transition, upgrade, or recurrent training,
c) Describe “Master Difference Requirements (MDR)” for flightcrews requiring differences qualification for mixed fleet-flying or transition,
d) Provide examples of acceptable “Operator Difference Requirements (ODR)” tables,
e) Describe acceptable training program and flight simulation training device (FSTD) characteristics when necessary to establish compliance with applicable MDR table,
f) Identify checking and currency standards to be applied by FAA or operators,
g) Report Electronic Flight Bag (EFB) evaluations, and
h) Provide a listing of regulatory compliance status (compliance checklist) for the pertinent 14 CFR, Advisory Circulars (AC), and other operationally related criteria that was reviewed and evaluated by the Aircraft Evaluation Group (AEG).

1.2 This report addresses HA-420 aircraft as specified in the FAA Type Certificate Data Sheet (TCDS) # A00018AT. This report is applicable to all training and checking in the aircraft as well as currency and experience requirements.

1.3 The provisions of this Flight Standardization Board (FSB) report are effective until amended, superseded, or withdrawn by subsequent revisions to this report.

1.4 Determinations made in this report are based on the evaluations of specific HA-420 aircraft equipped in a given configuration and in accordance with current regulations and guidance. Modifications and upgrades made to the models described herein, or introduction of new related aircraft, may require amendment of the findings in this report. The FSB reserves responsibility/authority to re-evaluate and modify sections of this report based on new or revised Advisory Circular material or revisions to parts 91 and 135, aircraft operating experience, or the testing of new or modified aircraft under the provisions of AC 120-53, Guidance for Conducting and Use of Flight Standardization Board Evaluations, as amended.

1.5 Relationship between this FSB report and an Advanced Qualification Program (AQP). Refer to FAA Order 8900.1, Volume 3 for differences between this FSB report and an operator's proposed training, checking, and currency requirements under an AQP. Differences must be justified and documented as part of the applicant's AQP approval process.

1.6 Terminology. The term "must" is used in this FSB report, even though it is recognized that this report (as well as AC 120-53B, on which it's based) provides one acceptable means, but not necessarily the only means, of compliance with part 91K or part 135. The term "must" acknowledges the need for operators to fully comply with this FSB report and MDR and ODR if the provisions of AC 120-53 are to be used by the operator as the means of complying with part 91K and part 135.

1.7 This report includes:

a) Minimum training, checking, and currency requirements for operator programs for approval by FAA field offices, (e.g., MDRs, Type Rating designations),
b) General advisory information which may be approved for that operator (e.g., MDR footnotes, acceptable ODR tables),
c) Information which is used to facilitate FAA review of an aircraft type or related aircraft that is proposed for use by an operator (e.g., compliance checklist), and
d) Requirement for Inspectors and Designees/Check Pilot to receive initial and recurrent training in Honda Aircraft Company HA-420.

Various sections of this report are qualified as to whether compliance (considering the provisions of AC 120-53) is required or is advisory in nature.

1.8 This report also provides:

Information which is advisory in nature, but may be mandatory (under 14 CFR part 91K Management Specifications or part 135 Operations Specifications for particular operators) if the designated configurations apply and if approved for that operator.

1.9 Relevant acronyms are defined as follows:

14 CFR	Title 14 of the Code of Federal Regulations
AC	Advisory Circular
ACO	Aircraft Certification Office
ADS	Automatic Dependent Surveillance
AEG	Aircraft Evaluation Group
AFM	Airplane Flight Manual
AFS	Flight Standards Service
ANP	Actual Navigation Performance
APD	Aircrew Program Designee
APM	Aircrew Program Manager
AP	Autopilot
AQP	Advanced Qualification Program
ASI	Aviation Safety Inspector
ATD	Aviation Training Device
ATP	Airline Transport Pilot
CAS	Crew Alerting System
CAT II	ILS Category II Instrument Approach
CFR	Code of Federal Regulations
CHDO	Certificate-Holding District Office
CNS	Communications, Navigation, and Surveillance
CPDLC	Controller Pilot Data Link Communication
DC	Display Controller
DP	Departure Procedure
EEC	Electronic Engine Control
EFB	Electronic Flight Bag
EFIS	Electronic Flight Instrument System
EGPWS	Enhanced Ground Proximity Warning System
EICAS	Engine Indicating and Crew Alerting System
FAA	Federal Aviation Administration
FADEC	Full Authority Digital Engine Control
FANS	Future Air Navigation Systems
FFS	Full Flight Simulator
FGS	Flight Guidance System
FMA	Flight Mode Annunciator
FMS	Flight Management System
FSB	Flight Standardization Board
FSTD	Flight Simulation Training Device
FTD	Flight Training Device
IPT	Integrated Procedures Trainer
IMC	Instrument Metrological Conditions
IRS	Inertial Reference System
LOE	Line Oriented Evaluation

LOFT	Line Oriented Flight Training
MMEL	Master Minimum Equipment List
MCDU	Multi-Function Control Display Units
MDR	Master Differences Requirements
MFD	Multi-Function Display
MFF	Mixed Fleet Flying
MKC-AEG	Kansas City Aircraft Evaluation Group
NSP	National Simulator Program
ODR	Operator Differences Requirements
PF	Flying Pilot
PFD	Primary Flight Display
PIC	Pilot-in-Command
PM	Pilot Monitoring
POI	Principal Operations Inspector
PTS	Practical Test Standard
QRH	Quick Reference Handbook
RFMU	Radio Frequency Management Unit
RVSM	Reduced Vertical Separation Minimum
SIC	Second-in-Command
SOE	Supervised Operating Experience
STAR	Standard Terminal Arrival Route
TAWS	Terrain Awareness and Warning System
TCAS	Traffic Alert and Collision Avoidance System
TCDS	Type Certificate Data Sheet
TCE	Training Center Evaluator
TCPM	Training Center Program Manager
VMC	Visual Metrological Conditions
VNAV	Vertical Navigation
V_1	Takeoff Decision Speed
V_R	Takeoff Rotation Speed
V_2	Takeoff Safety Speed
V_{Ref}	The landing approach airspeed with flaps in the LDG position
91K	14 CFR Part 91 Subpart K

2. PILOT "TYPE RATING" REQUIREMENTS

2.1 Pilot-in-Command Type Rating. In accordance with the provisions of parts 1, 61, 91, 91K, and 135, the specific pilot type rating assigned for the Honda Aircraft Company HA-420 is designated as "HA-420". Pilots who satisfactorily complete the type rating practical test in the HA-420 as a single pilot may receive an HA-420 Type Rating. A pilot with the HA-420 type rating may operate the aircraft as a single pilot, or operate as a pilot-in-command (PIC) with a second-in-command (SIC) on the aircraft.

2.2 Second-in-Command (SIC) Type Rating. In accordance with the provisions of § 61.55, FAA Order 8900.1, Volume 5, Chapter 2, a SIC Privileges Only type rating can be issued as "HA-420" with Limitation for "HA-420 SIC Privileges Only".

3. "MASTER DIFFERENCE REQUIREMENTS" (MDR)

3.1 Common Requirements (HA-420).

3.1.1. Autopilot Engage Altitudes. As referenced by approved AFMs, the HA-420 has specifically been evaluated for autopilot suitability for engagement at or above 500 feet AGL during takeoff and go-around. Autopilot engaged takeoff and landing is not authorized.

3.1.2. Minimum Altitude for Autopilot Use/Non-Precision Approaches. The HA-420 has specifically been evaluated for autopilot suitability for continued use during non-precision approaches to an altitude of not less than 200 feet AGL.

3.1.3 Landing Minima Categories § 97.3. The HA-420 is considered Category "B" aircraft for the purposes of determining normal "straight-in" landing weather minima. This is based on the maximum certificated landing weight V_{Ref} for flaps "Land". For circling approaches, flaps "Land" is the recommended flap position and the minimum indicated airspeed is V_{Ref} +10 for the actual gross weight of the aircraft, plus any speed additives for the conditions during the approach, until aligned with the landing runway. If operating at a speed in excess of the upper limit of the speed range for the aircraft's category, the minimums for the higher category must be used.

3.1.4. Normal "Final Landing Flap Setting". The normal "final landing flap setting" per § 91.126(c) is considered to be Flaps "Land" for HA-420.

3.2 Master Difference Requirements.

3.2.1 Requirements for HA-420. Master Difference Requirements (MDRs) Table is reserved.

4. "OPERATOR DIFFERENCE REQUIREMENTS" (ODR) TABLES

4.1 ODR Tables. ODR Tables are reserved. Each individual part 91K and part 135 operator, when differences exist which affect crew qualification, will develop their own set of tables. The ODR tables are provided as generic tables, and therefore, may not include items that are applicable to particular operators.

4.2 Operator Preparation of ODR Tables. Operators flying the HA-420 must have approved ODR tables if applicable to their fleet.

4.3 ODR Table Coordination. ODR tables proposed by operators that are not identical or equivalent to acceptable ODR Tables published in this report must be coordinated with the FSB Chair prior to FAA approval and implementation. FSB coordination ensures consistent treatment of related HA-420 aircraft between various operators and compatibility of each ODR table with MDR provisions.

4.4 ODR Table Distribution. Original FAA approved ODR tables not published in this report are to be retained by the operator. Copies of FAA approved ODR tables are to be retained by the Certificate-Holding District Office (CHDO).

5. FSB SPECIFICATIONS FOR TRAINING

5.1 General.

5.1.1 Assumptions Regarding Airmen's Previous Experience. The provisions of this Section apply to programs for airmen who have experience in part 91K or part 135 operations, former military, commuter or corporate pilots, and multi-engine transport turbojet aircraft, including glass cockpit and FMS experience. For airmen not having this experience, additional requirements may be appropriate as determined by the POI, TCPM, FSB, and/or AFS-200/800.

5.1.2 Operator training differences are not applicable to the HA-420.

5.1.3 Training for Seat Dependent Tasks. No seat dependent tasks were identified for the HA-420.

5.1.4 Second-in-Command Training. Flightcrews qualifying to serve as SIC must accomplish certain tasks, procedures, or maneuvers for the SIC crew position. Training programs should address all training elements of part 61, 91, or 135. SIC Pilot Type Rating may be issued in accordance with § 61.55 provided training tasks stipulated by this report are also completed.

5.2 Pilots Initial, Transition, and Upgrade Training

5.2.1 Pilots Initial, Transition, and Upgrade Ground Training. Initial, transition, or upgrade ground training for the HA-420 is accomplished as specified by §§ 61.155, 91.1101, and 135.345.

5.2.2 Pilots Initial, Transition, and Upgrade Flight Training. Initial, transition, or upgrade flight training for the HA-420 is accomplished as specified by §§ 61.157, 91.1103, and 135.347.

5.2.3 Crewmember Emergency Training. Crewmember emergency training should be conducted for the HA-420 in accordance with 14 CFR and FAA Order 8900.1.

The objective of emergency training for the HA-420 aircraft is to provide crewmembers with the necessary knowledge concerning emergency equipment, situations, and procedures to ensure implementation of the correct actions in the event of an emergency.

Emergency training consists of instruction on the location, function, and operation of emergency equipment in the HA-420 aircraft. Where emergency equipment is common, instruction may be adjusted for crewmembers qualified and current on this equipment, provided records are available which demonstrate that crewmembers meet 14 CFR and FAA Order 8900.1 requirements. For example, if the fire extinguishers are common to fire extinguishers on other aircraft in the operator's fleet, training may be credited for all applicable aircraft. Conversely, for equipment that is unique to the HA-420, training on the emergency equipment for the aircraft is required.

Emergency training also consists of instruction in crewmember emergency assignments and procedures including crew coordination and communication, the handling of emergency or other unusual situations, and emergency performance and observation drills specific to HA-420 aircraft.

In accordance with the 14 CFR and FAA Order 8900.1, emergency training requirements refer to two types of training: "general" emergency training and "aircraft-specific" emergency training. General emergency training is instruction on those emergency items that are common to the HA-420 and all aircraft in the operator's fleet (e.g., instruction on fire extinguishers and firefighting procedures) if common to all aircraft. Aircraft-specific emergency training is training on those items that are specific to the HA-420 aircraft. An example of aircraft-specific emergency training is instruction on the location of emergency equipment.

As part of an approved training program, an operator may use many methods when conducting aircraft-specific emergency training, including classroom instruction, pictures, videotape, ground training devices, computer-based instruction, and static aircraft training.

There are no specified training program hours for Crewmember Emergency Training. A chart addressed in FAA Order 8900.1 provides "national norms" for the approval of the general emergency training program hours.

5.2.6 Areas of Emphasis. The following areas of emphasis should be addressed during ground and flight training:

Ground training in the following subjects for the HA-420 is required:

a) Crew Resource Management,
b) Cockpit Familiarization,
c) Aircraft General Description (Interior/Exterior),

d) Review of the AFM and Operating Manuals to include Normal and Abnormal Procedures and Limitations,
e) Lighting Systems,
f) CAS (Crew Alerting System),
g) Powerplant,
h) Fire Protection System,
i) Electrical System,
j) Fuel System,
k) Hydraulic System,
l) Landing Gear, Power/Anti-Skid Brake Systems,
m) Flight Controls,
n) Pneumatics,
o) Air Conditioning System,
p) Ice and Rain Protection Systems,
q) Oxygen System,
r) Pressurization System,
s) Preflight Procedures,
t) PFD and MFD Displays and Controls and Avionics Systems,
u) Flight Management System,
v) Systems Integration Training,
w) MMEL Procedures,
x) Introduction to Performance,
y) Weight and Balance Procedures,
z) Aircraft Performance Procedures and Limitations,
aa) Automatic Flight Control System,
bb) High Altitude Operations, and
cc) Electronic Flight Bag.

Particular emphasis should be placed upon takeoff and landing performance. The definitions of and the significance of V_1, V_R, V_2, and V_{Ref} should be thoroughly explained. The determination of maximum takeoff and landing weight due to climb capability, obstacle clearance requirements, and brake energy limits should be thoroughly understood by the student.

Flight training for the HA-420. Flight Training should focus on the following events or maneuvers:

a) Exterior inspection.
b) Cockpit/Cabin Familiarization.
c) Systems Tests and Checks.
d) Multiple approaches requiring reprogramming of approaches into the avionics system.
e) Stall recovery at first indication of stall warning.
f) No Flap Landing Procedures.

g) Normal Procedures.
h) Abnormal Procedures.
i) Emergency Procedures to include an approach simulating using only Emergency power.
j) Flight Operations in the Reversionary Display Modes.
k) VMC and IMC approaches (with and without Synthetic Vision enabled).
l) Engine failure, after V_1 and/or missed approach.

5.2.7 Training for Seat Dependent Tasks. No seat dependent tasks were identified for the HA-420. Training programs should recognize and address the necessary seat/position related tasks for the applicable crewmember. Accordingly, training programs should address seat dependent tasks or maneuvers to the extent necessary to satisfy crew qualification objectives and IAW ODR tables when applicable.

5.2.8 Second-in-Command Crew Training. Flightcrews qualifying to serve as SIC must accomplish certain tasks, procedures, or maneuvers for the SIC crew position. Training programs should address all training elements of part 61, 91, or 135. Training programs should address tasks stipulated in FSB Specifications for Training, Areas of Emphasis, Training for Seat Dependent Tasks, and SIC Crew Training.

5.3 Differences Training. Differences Training for HA-420 is not applicable.

5.4 Recurrent Training.

5.4.1 Recurrent Ground Training. Courses must include appropriate training in accordance with §§ 91.1107 or 135.351 for HA-420 aircraft.

5.4.2 Recurrent Flight Training. Courses require appropriate maneuvers and procedures identified in §§ 91.1107 or 135.351 or as otherwise described in this report.

5.5 Operating Experience.

5.5.1 Operating Experience Pertinent to Each Flightcrew Member. Operating experience must be obtained while serving in a primary crew position.

5.5.2 Supervised Operating Experience (SOE). SOE required for a PIC Type Rating in accordance with part 61 pilot certification must be accomplished from the left pilot seat.

5.6 Other Training.

5.6.1 Line Oriented Flight Training (LOFT) Programs. When operators have LOFT programs, POIs should review suitability for HA-420 aircraft.

5.6.2 Instrument Approaches. ILS Category II (CAT II) instrument approach was not evaluated for HA-420.

NOTE: Operators should ensure that flightcrews are familiar with appropriate use of the flight control automation, including modes to be used, for the types of instrument approaches to be flown. This emphasis is also appropriate for aircraft that do not have certain navigation system sensors, such as ADF, installed.

5.6.3 Long Range/Extended Range/Overwater Flights. Due to criticality of fuel computations, flightcrews should be familiar with all aspects of fuel management to include normal and abnormal procedures, published flight planning information, and the manner in which fuel computations are made.

5.6.4 Hazardous Weather and Winter Operations. Proper precautions and procedures regarding hazardous weather/winter operations should be addressed.

5.6.5 Controlled Flight Into Terrain (CFIT). Emphasis on altitude awareness, Terrain Awareness Warning Systems (TAWS) warnings, situational awareness, and crew coordination.

5.6.6 Reduced Vertical Separation Minimums (RVSM). Operating practices and procedures to include Traffic Alert and Collision Avoidance System (TCAS) alerts and annunciations.

5.6.7 Future Air Navigation Systems (FANS). Instruction in general operational functions, appropriate uses for areas of operation, routes, or procedures to be flown. Training to address Communications, Navigation, and Surveillance (CNS) functions, Required Navigation Performance (RNP), and Actual Navigation Performance (ANP). Training in Controller Pilot Data Link Communication (CPDLC) and Automatic Dependent Surveillance (ADS) to ensure adequate knowledge, skill, and proficiency to operate the above systems in typical daily operations should be provided (when installed).

5.6.8 Training Objective. The objective of both ground and flight training is train to proficiency.

6. FSB SPECIFICATIONS FOR CHECKING

6.1 General.

6.1.1 Checking Items. Pertinent knowledge, procedures, and maneuvers specified by part 61, part 91K, part 135, and FAA Airline Transport Pilot and Aircraft Type Rating Practical Test Standards (PTS), document number FAA-S-8081-5F, as amended.

6.1.2 Areas of emphasis. The following areas of emphasis should be addressed during checks as necessary:

a) Proficiency with manual and automatic flight must be demonstrated.
b) Proper selection and use of PFD/MFD displays, raw data, flight director, and Flight Guidance System modes should be demonstrated, particularly during instrument approaches.
c) Proper outside visual scan without prolonged fixation on FMS operation should be demonstrated, and failure of component(s) of the FMS should be addressed.

6.1.3 No Flap Landings. Demonstration of a No Flap approach and landing during a check is required. In accordance with FAA Order 8900.1, Volume 5, Chapter 3. When the flight test is conducted in a transport or commuter category airplane, a touchdown from a no flap or partial flap approach is not required and shall not be attempted. The approach must be flown to the point that the inspector or examiner can determine whether the landing would or would not occur in the TDZ.

6.2 Type Ratings.

6.2.1 Practical Tests. Practical tests may follow standard provisions of part 61 and PTS. The satisfactory completion of a practical type rating evaluation in HA-420 will meet the requirement for the type rating.

6.2.2 Application For and Issuance of Type Ratings. Airmen completing pertinent part 61, part 91K, or part 135 requirements in HA-420 in accordance with FSB requirements described in this report may apply to the FAA for the HA-420 type rating endorsement. Upon completion of required tests and submission of an application via Integrated Airman Certification and/or Rating Application (IACRA) or FAA Form 8710-1 (Airman Certification and/or Rating Application), an authorized designee or qualified ASI may issue the necessary pilot certificate with type rating. Practical tests conducted in HA-420 with two pilots will result in a HA-420 pilot type rating with the limitation “HA-420 Second in Command Required.” These checks must be administered by an authorized designee or ASI who has been qualified on the HA-420.

6.3 Proficiency Checks.

6.3.1 General. Proficiency Checks are administered in accordance with part 61, part 91K, or part 135. These checks must be administered by an authorized check pilot or qualified ASI who has been qualified on the HA-420. Satisfactory completion of a proficiency check may be substituted for recurrent flight training as permitted in part 91K or part 135.

7. FSB SPECIFICATIONS FOR RECENCY OF EXPERIENCE

7.1 Recency of Experience. Recency of experience must include operation and programming of the FMS and use of AFCS/Autopilot for departure, enroute, arrival, and approaches.

7.2 Currency for HA-420. AC 120-53 (as amended) provides definitions of Levels A, B, C, etc.

7.2.1 Level B Currency. Currency is maintained by operating the aircraft within the previous 180 days. Currency may be re-established by review of all Level B items identified for the aircraft to include Bulletins, Placards, Memos, Limitation, Operating Procedures, and Manual Updates prior to operating the related aircraft. A proficiency check in the aircraft is an acceptable means to reestablish currency.

7.2.2 Level C Currency. Currency is maintained by operating the aircraft through a complete flight cycle (takeoff, departure, arrival, approach, and landing) including an instrument approach procedure within the previous 90 days. Currency may be reestablished by operating the aircraft, Full Flight Simulator (FFS), or Level 6 Flight Training Device (FTD) with a qualified PIC for a minimum of one complete flight cycle, completing a type rating practical test, completing any of the following checks in an aircraft or Flight Simulation Training Device (FSTD) by an authorized Check Pilot, authorized TCE, Designated Examiner, a person qualified by the Administrator, or a qualified ASI: §§ 61.57(c)(d), 61.58, 91.1065, 91.1069, 135.293, 135.297, and 135.299.

7.2.3 Level D Currency. Currency is maintained by operating the aircraft through three complete flight cycles (takeoff, departure, arrival, approach, and landing) within the previous 90 days. Currency may be reestablished by operating the aircraft or Full Flight Simulator (FFS) with a qualified PIC for a minimum of three complete flight cycles, completing an approved differences course, completing a type rating practical test, or completing any of the following checks in the variant aircraft or FFS administered by an authorized Check Pilot, authorized TCE, Designated Examiner, a person qualified by the Administrator, or a qualified ASI: §§ 61.57(c)(d), 61.58, 91.1065, 91.1069, 135.293, 135.297, and 135.299.

7.2.4 Instrument proficiency check. A person who has failed to meet the instrument experience requirements for more than 6 calendar months may reestablish instrument currency only by completing an instrument proficiency check. The instrument proficiency check must consist of the areas of operation and instrument tasks required in the instrument rating practical test standards in the HA-420.

8. AIRCRAFT REGULATORY COMPLIANCE CHECKLIST

8.1 Compliance Checklist. Compliance checklists are provided as an aid to FAA Certificate-Holding District Offices (CHDO) in identifying those specific rules or policies for which compliance has already been demonstrated to the FAA. The compliance checklist also notes rules or policies not demonstrated to the FSB which must be demonstrated to CHDOs by operators. The Regulatory compliance checklist examples are available from the Kansas City AEG.

8.2 Discussion of Specific Compliance Checklist Items. Operational approval information is provided as an aid to CHDOs for identifying specific regulatory compliance.

8.2.1 Forward Observer Seat. Honda HA-420 aircraft are not equipped with a dedicated forward observer seat. The side facing seat across from the forward entry door is acceptable for conducting enroute inspections. The operator must provide a means for the Inspector to monitor communications between the crew and from outside the aircraft. Determination of suitability for use of any other forward passenger seat for use in conducting enroute inspections will need to be determined by the CHDO or Inspector conducting enroute inspections.

8.2.2 Emergency Evacuation. Part 135 Operators must meet the requirements of § 135.123, and part 91K operators must meet the requirements of § 91.1083.

8.2.3 Ditching Demonstration. While no specific requirement for a ditching demonstration exists under parts 91/91K/135, operators/crewmembers must comply with the requirements of §§ 91.1083 and 135.331 and must be familiar with the general handling characteristics and procedures outlined in the aircraft flight manual.

8.2.4 Proving and Validation Tests. Proving and validation tests in accordance with §§ 91.1041 and 135.145 are appropriate in accordance with FAA Order 8900.1, Volume 3, Chapter 29 when the HA-420 is new to a particular operator.

8.2.5 Electronic Flight Bag. Electronic Flight Bag was evaluated by the FSB (Appendix 3).

8.2.6 Electronic Checklist. Electronic Checklist was evaluated by the FSB (Appendix 4).

8.2.7 Passenger briefing cards. The CHDO will need to verify passenger briefing cards meet requirements of §§ 91.1035 and 135.117 and match the interior configuration and emergency equipment installed. If the aircraft was delivered by Honda with rafts and/or life preservers installed, passenger briefing cards normally include information on raft and/or life preserver location and use.

9. FSB SPECIFICATIONS FOR FLIGHT SIMULATION TRAINING DEVICES (FSTD)

9.1 Flight Simulation Training Device Characteristics. Flight simulation training device (FSTD) characteristics are specified by part 60. The acceptability of differences between FSTDs and aircraft must be determined for each approved training program. When variants are flown in mixed fleets, the combination of FSTDs used to satisfy MDR and ODR provisions should address specific variants flown by that operator. The acceptability of differences between FSTDs and aircraft operated must be addressed by the POI.

9.2 FSTD Approval. Requests for FSTD approval to be utilized during approved training should be made to the POI/TCPM. The POI/TCPM may approve these FSTDs for that operator if their characteristics clearly meet the established FAA criteria and have been qualified by the National Simulator Program (NSP). Where FSTDs do not clearly satisfy a given level, the POI/TCPM should request advice from the FSB Chair, NSP, or AFS-200.

10. APPLICATION OF FSB REPORT

10.1 This report becomes effective when approved by the FAA (see Cover Sheet or Record of Revision page).

10.2 Training, checking, and currency for the HA-420 aircraft must be conducted in accordance with all provisions of this report.

10.3 All FAA Approved Training Programs must incorporate the latest FAA Approved AFM Procedures, AFM checklists, manufacturer’s recommendations and bulletins, training maneuvers, and provisions of this report.

11. ALTERNATE MEANS OF COMPLIANCE

11.1 Approval Level and Approval Criteria. Alternate means of compliance to the requirements of this report must be approved by the Kansas City AEG, FSB Chair. If alternate means of compliance is sought, operators must show that the proposed alternate means provides an equivalent level of safety to the provisions of AC 120-53 (as amended) and this FSB report. Analysis, demonstrations, proof of concept testing, differences documentation, or other evidence may be required.

11.2 Equivalent Safety. In the event alternate means of compliance is sought, training program hour reductions, FSTD approval may be significantly limited and reporting requirements may be increased to assure equivalent safety. FAA will generally not consider relief

through alternate means of compliance unless sufficient lead time has been planned by an operator to allow for any necessary testing and evaluation.

11.3 Interim Programs. In the event unforeseen circumstances make it impossible for an operator to comply with MDR provisions, the operator may seek interim program approval rather than a permanent, alternate compliance method. Financial arrangements, scheduling adjustments, and similar reasons are not considered to be “unforeseen circumstances” for the purposes of this provision. Interim program approvals must be approved by the FSB Chair.

APPENDIX 1

MASTER DIFFERENCE REQUIREMENTS (MDR) TABLE

(Reserved)

Example is available in AC 120-53.

APPENDIX 2

ACCEPTABLE OPERATOR DIFFERENCE REQUIREMENTS (ODR) TABLES

(Reserved)

Examples are available in AC 120-53.

APPENDIX 3

CLASS 3 ELECTRONIC FLIGHT BAG OPERATIONAL EVALUATION

Class 3 Electronic Flight Bag Operational Evaluation

Honda Aircraft Company HA-420 aircraft equipped with Garmin 3000 Integrated Flight Suite.

Table of Contents

1. Purpose and Applicability.

   The following is provided for the benefit of FAA Principal Inspectors and aircraft operators for their use in determining the acceptance of EFB applications. As described in AC 120-76C, Guidelines for the Certification, Airworthiness, and Operational Approval of Electronic Flight Bags Computing Devices, the G3000 electronic charts are certified Class 3 EFB Hardware and Type C applications. Class 3 hardware is installed equipment and requires AIR involvement and AEG involvement. Applications are classified as Type C due to interaction of the Electronic Charts with the aircraft. The charts can be

manipulated (i.e., zoomed, scrolled) as Type B, but are classified Type C because aircraft present position is provided on the installed display on the airport depictions and charts.

2. Suitability Determination.

The EFB evaluation determined chart display functions to be suitable as one source for electronic display of airport diagrams, approach plates, arrival procedures, and departure procedures. Since chart information cannot be displayed in the event of certain avionics failures, a suitable backup is required. Approved airplane flight manual provides operating limitations for the installation.

3. Description.

The G3000 includes “FliteChart” and optional “ChartView” electronic charts. A specific system description for the system configuration appropriate to the installation is available in the Approved Airplane Flight Manual (AFM), and Garmin G3000 Integrated Avionics System Pilot’s Guide.

4. Mounting.

EFB applications are displayed on the Multi-function Display and have been certified as part of the type design.

5. Display and Reflectivity.

The EFB has been evaluated as part of the type design.

6. Database Revisions.

The database currency requirements are specified in the Approved Airplane Flight Manual and Garmin G3000 Integrated Avionics System Pilot’s Guide.

7. Specifications for Training.

As a minimum, the crew should use the FMS to flight plan and the EFB electronic chart functions to display the airport depiction charts, SIDs, Arrival Procedures, and approach charts. Pilots should master the weather functions to obtain METARS and TAFs for origin, destination, and alternate airports if XM weather functions are enabled.

8. Specification for Checking.

Recommended tasks include demonstrating competency in using the FMS to integrate use of the electronic chart functions to display departures, arrivals, and approaches, and utilizing the graphical weather functions if XM weather functions are enabled.

9. Specification for Currency.

   If EFB use is included in recurrent training and recurrent Line Checks, no unique currency provisions apply to the EFB.

10. Environmental Testing (HIRF, EMI).

    Intensity Radiated Fields and Indirect Effects of Lightning for system were tested per High Intensity Radiated Fields (HIRF) and Indirect Effects of Lightning Test Procedure. The system meets Certification Basis requirements and special conditions for High Intensity Radiated Fields and Indirect Effects of Lightning.

11. Continued Airworthiness.

    Instructions for Continued Airworthiness for the system are addressed in accordance with aircraft certification requirements and available through normal ICA distribution processes.

12. LIST of Affected Document.

    The following is a list of Procedures, Documents, and Affected Manuals concerning Operational Approval of G3000 electronic charts for use as an Electronic Flight Bag:

    - FAA Approved Airplane Flight Manual.
    - G3000 Integrated Avionics System Pilot’s Guide.
    - Flightcrew Training Program.
    - Training Courseware (Flightcrew, Maintenance Personnel, Operations Personnel).
    - Company Maintenance Procedures.
    - Component Maintenance Manuals.
    - Minimum Equipment List.
    - Data Delivery and Management Procedures.
    - EFB Configuration Control Procedures.

APPENDIX 4

ELECTRONIC CHECKLIST EVALUATION

The Electronic Checklist was evaluated after the completion of the formal Flight Standardization Board (FSB). The evaluation was completed in March of 2016 at the Honda Aircraft Facility in Greensboro, NC.

Checklists can be displayed on any Display Pane of the PFDs or MFD, and checklist items can be selected/de-selected. Selection of checklist items or checklist section can be accomplished using the CDU controls or by a scroll wheel control on each yoke. The CHECKLIST control is an up/down scroll wheel switch with detents and a momentary push-action. Pushing the wheel displays the checklist on the on-side PFD Display Pane. Rotating the scroll wheel moves a selection box up/down on the display.

A paper/hard copy of the Honda Aircraft HA-420 Quick Reference Handbook – Normal Procedures and Quick Reference Handbook – Emergency/Abnormal Procedures must be readily available during flight operations as a means of backup in case of electronic checklist/MFD failure.

This checklist system was found to be acceptable for all flight operations by the Kansas City Aircraft Evaluation Group (AEG).

APPENDIX 5

AIRCRAFT REGULATORY COMPLIANCE CHECKLIST

(Reserved)