



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 147

Docket No.: FAA-2015-3901; Notice No. 19-02

RIN 2120-AK48

Aviation Maintenance Technician Schools

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Supplemental Notice of Proposed Rulemaking (SNPRM).

SUMMARY: On October 2, 2015, the FAA published in the Federal Register a notice of proposed rulemaking proposing to amend the regulations governing the curriculum and operations of FAA-certificated Aviation Maintenance Technician Schools. Commenters suggested expanding the scope of that proposal to allow competency-based training and satellite training locations and to eliminate the national passing norms specified in the quality of instruction requirements. After analyzing the comments, the FAA agrees with expanding the scope of the proposal. The FAA is proposing to allow the option of competency-based training and satellite training locations. Additionally, the FAA is proposing to amend the quality of instruction requirements by replacing the national passing norms with a standard pass rate.

DATES: Send comments on or before INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Send comments identified by docket number FAA-2015-3901 using any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov> and follow the online instructions for sending your comments electronically.
- Mail: Send comments to Docket Operations, M-30; U.S. Department of Transportation, 1200 New Jersey Avenue, SE, Room W12-140, West Building Ground Floor, Washington, DC 20590-0001.
- Hand Delivery or Courier: Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC 20590-0001, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- Fax: Fax comments to Docket Operations at (202) 493-2251.

Privacy: In accordance with 5 USC 553(c), DOT solicits comments from the public to better inform its rulemaking process. DOT posts these comments, without edit, including any personal information the commenter provides, to <http://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at <http://www.dot.gov/privacy>.

Docket: Background documents or comments received may be read at <http://www.regulations.gov> at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC 20591, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: For technical questions concerning this action, contact Robert W. Warren, Aircraft Maintenance Division, Federal Aviation

Administration, 800 Independence Avenue SW, Washington DC 20591; telephone (202) 267 1711; email Robert.W.Warren@faa.gov.

SUPPLEMENTARY INFORMATION:

Authority for this Rulemaking

The FAA's authority to issue rules on aviation safety is found in Title 49 of the United States Code. Subtitle I, Section 106 describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the agency's authority.

This rulemaking is promulgated under the authority described in Title 49, Subtitle VII, Part A, Subpart I, Chapter 401, Section 40113 (prescribing general authority of the Administrator of the FAA, with respect to aviation safety duties and powers, to prescribe regulations); and Subpart III, Chapter 447, Sections 44701 (general authority of the Administrator to prescribe regulations and minimum standards in the interest of safety for inspecting, servicing, and overhauling aircraft, engines, propellers, and appliances, including for other practices, methods, and procedures necessary for safety in air commerce); 44702 (authority of the Administrator to issue air agency certificates); 44707 (authority of the Administrator to examine and rate air agencies, including civilian schools giving instruction in repairing, altering, and maintaining aircraft, aircraft engines, propellers, and appliances, on the adequacy of instruction, the suitability and airworthiness of equipment, and the competency of instructors); and 44709 (authority of the Administrator to amend, modify, suspend, and revoke air agency and other FAA-issued certificates).

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I. Executive Summary

On October 2, 2015, the FAA published a NPRM titled “Aviation Maintenance Technician Schools” (80 FR 59674) proposing to amend 14 CFR part 147 (part 147), which contains the curriculum and operating requirements for Aviation Maintenance Technician Schools (AMTS). The FAA received over 300 comments in response to the NPRM. Among these comments were requests to the FAA to allow competency-based training (CBT) and satellite training locations. The FAA also received comments on the quality of instruction requirements, including the suggestion to remove the national passing norms.

Since any changes to the regulations covering these three topics would be beyond the scope of what was proposed in the NPRM, the FAA is publishing this SNPRM to provide notice of the proposed changes and the opportunity for comments on these new proposals.

In this SNPRM, The FAA proposes to allow AMTSs to deliver their approved curriculums using a CBT program. The FAA also proposes to allow satellite training locations for these schools, which could expand the capacity to recruit and educate future aircraft mechanics. Lastly, the FAA proposes to replace the current national passing norm requirements with a standard pass rate that would apply to all AMTSs.

CBT and satellite training locations would be voluntary provisions. Therefore, the FAA assumes the utilization of these flexibilities would produce benefits net of costs because AMTSs will only adopt these changes if they believe they will be cost beneficial. The FAA estimates that the overall cost saving of the requirement to replace the national passing norms with a standard pass rate would be minimal. Therefore, the expected outcome of this proposed rule will be a minimal impact.

Providing flexibility to AMTSs to use CBT may produce cost savings and generate benefits. For instance, CBT would allow AMTSs to pre-screen applicants for competencies they possess at the time of application, and provide relief to those applicants for the corresponding curriculum elements. CBT may also allow the AMTS to focus on the competencies for which their students require more remedial attention, providing a more individualized and higher-quality training for its students. At this time, the FAA does not have data to quantitatively assess whether the relief provided by the pre-assessment of student competencies would outweigh the costs associated with the additional care and attention provided to students who require remedial attention. Nevertheless, the FAA believes that CBT would allow AMTSs to concentrate resources on where they will provide the most benefits.

The FAA acknowledges that there would be some startup costs incurred for some schools to transition over to CBT. However, the FAA believes that because this SNPRM provides CBT as an additional flexibility, rather than a requirement, it can safely presume that any utilization of CBT would provide benefits or cost savings that exceed the costs. Similarly, the FAA acknowledges that AMTSs would incur costs to set up satellite locations, but the FAA presumes that AMTSs would only incur those costs if there were sufficient demand to recover them.

The FAA estimates that the overall cost saving of the requirement to replace the national passing norms with a standard pass rate would be minimal.

II. Background

A. Summary of NPRM

As previously stated, on October 2, 2015, the FAA published an NPRM titled “Aviation Maintenance Technician Schools.”¹ In the NPRM, the FAA proposed to amend the regulations governing the curriculum and operations of FAA-certificated AMTSs. The proposed rule would modernize and reorganize the required curriculum subjects found in the appendices of the current regulations. The FAA also proposed to remove the course content items from the appendices and relocate them to each school’s operations specifications.² This change would enable easier and more timely amendments to course content when necessary. Additionally, the FAA proposed to revise the curriculum requirements to include an option for schools to use a credit hour curriculum as an alternative to an instructional hour curriculum.

The FAA proposed these changes because the existing curriculums in some areas are outdated, do not meet current industry needs, and can be changed only through notice and comment rulemaking. These amendments would better enable students to receive current foundational training that meets the demanding and dynamic needs of the aviation industry.

Additionally, with respect to the quality of instruction requirements, the FAA proposed to retain the current national passing norms, which require a named proportion of each school’s graduates who apply within 60 days after graduation to pass the FAA written knowledge test

¹ 80 FR 59677

² Part 147 contains general curriculum subjects (appendix B), airframe curriculum subjects (appendix C), and powerplant curriculum subjects (appendix D). Each of these appendices contains subject headings, tasks within those subject headings, and the levels of proficiency to be demonstrated for each task. In the NPRM, the FAA proposed to revise and retain the subject headings but remove the remaining course content (i.e. the tasks and proficiency levels) and place them in the AMTS’ operations specifications.

during a specified period of time. The proportion of graduates who must pass the written knowledge test varies depending on the number of students who graduated from the school.

The proposals in the NPRM remain unchanged. However, given the length of time that has passed since the close of the NPRM’s comment period, the FAA will accept any new or updated comments on the provisions in the NPRM. To avoid delay in issuing a final rule, the FAA requests that commenters refrain from resubmitting prior comments that are unchanged as those comments are already in the docket and will be addressed in the final rule.

B. Summary of Comments on NPRM

The FAA received 324 comments in response to the NPRM. Commenters included industry organizations, individuals, instructors, and management of AMTSs. This section summarizes only the comments that relate to the three topics proposed in this SNPRM. All other comments will be disposed of in the final rule.

Several commenters asked the FAA to allow schools to provide some form of CBT in lieu of training based on a set number of curriculum hours. These commenters included 15 industry organizations (*see* Table: Industry Organization Commenters) and 9 individuals. Commenters explained that allowing a CBT curriculum would create flexibility and allow students to progress as they demonstrate mastery of subject matter. All but one individual supported CBT without hesitation. One individual commented that he is opposed to CBT if there is no test period or study to validate the effectiveness of the new method of training.

Table: Industry Organization Commenters

Aviation Technician Education Council	Helicopter Association International
Aeronautical Repair Station Association	Modification and Replacement Parts Association
Aerospace Maintenance Council	National Air Carrier Association
Aircraft Electronics Association	National Air Transportation Association
Aircraft Mechanic Fraternal Association	Regional Airline Association

Aircraft Owners and Pilots Association	STEM Education Coalition
Airlines for America	University Aviation Association
Aviation Suppliers Association	

One commenter asked the FAA to allow schools to conduct training at satellite locations away from the schools' primary location, such as at high schools.

Several commenters commented on the quality of instruction requirements. One commenter recommended the FAA remove the quality of instruction requirements entirely. The commenter explained that requiring passing norms is unnecessary and creates additional surveillance burdens on the FAA without an increase in safety. Several commenters expressed concern with the FAA's proposal to add a requirement that stated the failure to maintain the quality of instruction may be the basis for suspending or revoking the school's certificate.

These comments are discussed in more detail in section III of this preamble, "Discussion of SNPRM."

C. General Overview of SNPRM

The commenters' requests to allow CBT and satellite training locations and to eliminate the passing norms were beyond the scope of the NPRM. After considering the comments and the potential benefits to industry, the FAA has decided to expand the scope of the rulemaking by issuing an SNPRM. This SNPRM contains three new proposals. First, the FAA proposes to allow AMTSs to deliver their approved curriculums using CBT programs. The FAA proposes to add a new section, § 147.22, that would prescribe the requirements for a CBT program. Second, the FAA proposes new § 147.14 to allow satellite training locations for AMTSs, such as at high schools, which could expand the capacity to recruit and educate future aircraft mechanics. Lastly, the FAA proposes to amend the quality of instruction requirements in § 147.37 by

removing the national passing norm requirements and replacing them with a standard pass rate. These proposals are discussed in more detail in the following section.

III. Discussion of SNPRM

A. Competency-Based Training (CBT)

In the NPRM, the FAA proposed to revise § 147.21(b) to allow schools to use a credit hour curriculum instead of a traditional instructional hour curriculum. In the context of this proposal, the NPRM mentioned the term “competency-based training.”³

One commenter explained that a CBT curriculum would be based on knowledge and skill requirements rather than hour requirements. Another commenter asserted that the FAA confused credit hours with competency. The FAA received several comments asking for a competency-based standard free of defined schedules and hour requirements. Many commenters suggested that CBT would allow industry to transition away from classroom “seat” time in favor of a structure that creates flexibility and would allow students to progress as they demonstrated mastery of the specific subject matter, regardless of time, place, or pace of learning. Another commenter explained that competency-based instruction would allow instructors to meet each student’s learning needs and styles.

After analyzing these comments, the FAA recognized that its use of the term “competency-based training” in the context of a credit hour curriculum was inconsistent with the concept of competency-based education. The International Civil Aviation Organization (ICAO) defines “competency-based training and assessment” as training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.⁴ Upon

³ 80 FR 59677

⁴ ICAO Doc 9868, Procedures for Air Navigation Services, Training, 2d Edition (2016).

review of the comments on the NPRM, the FAA has decided to expand the proposal to include an option for schools to use a CBT curriculum.

In this SNPRM, the FAA proposes to add a new § 147.22, which would contain the requirements for a CBT program. Additionally, because proposed § 147.21(b) would require each school's approved curriculum to offer a prescriptive number of instruction hours or credit hours for the rating sought, the FAA is proposing to include an exception in proposed § 147.21(b) for CBT programs that satisfy the requirements of proposed § 147.22. Section 147.22 would add CBT as an option for certificated AMTSs. Under the proposed regulatory framework, the FAA would allow an AMTS to offer a CBT program in addition to either an instructional hour program or a credit hour program. Alternatively, an AMTS would have the option to provide only CBT under proposed § 147.22. However, based on proposed § 147.21(b), if a school chooses not to offer CBT, that school must offer either instruction hours or credit hours.

Under proposed § 147.22, a certificated AMTS could develop and use a CBT curriculum, provided the school obtains FAA-approval of its CBT program through an operations specification. An AMTS may develop a general, airframe, and/or powerplant CBT curriculum, or a combined airframe and powerplant curriculum, as applicable to the school's ratings. In addition, the proposal would allow an AMTS to develop individualized curriculums for students based on pre-training assessments. A CBT program would encompass an AMTS's CBT curriculum(s). In addition, proposed § 147.22 would require a CBT program to include the following elements: structure and content, training, competency assessments, students with prior training and experience, instructor qualification, data collection and analysis process, and

recordkeeping. These proposed requirements are addressed in more detail in the following discussions.

1. Structure and Content

CBT is a method of instruction that defines a set of competencies and that trains and assesses each student to achieve those competencies. A competency is a combination of skills, knowledge, and observable behaviors required to perform a task to the prescribed standard.⁵ The FAA proposes to allow certificated AMTSs to develop a CBT program for FAA-approval.

Under proposed § 147.22, to obtain FAA approval, the CBT curriculum would be required to cover the subjects prescribed in appendices B, C, and/or D, the course content items and teaching levels included under those subject headings, and the applicable competencies for each of those items. The FAA would give schools the flexibility to define the competencies in their CBT curriculums. However, the schools would be required to define the competencies based on the course content items and associated teaching levels, which the FAA proposed to include in the schools' operations specifications.⁶ The FAA believes the course content items and associated teaching levels convey the minimum standards necessary to qualify students to meet the requirements for a mechanic certificate, which are specified in part 65, subpart D. Accordingly, proposed § 147.22(b)(2) would allow a certificated AMTS to define in its CBT curriculum the competencies, to include knowledge, skills, and observable behaviors, that apply to each course content item and associated teaching level. The school would then train and assess its students to the competencies defined in its curriculum.

Additionally, the FAA believes that a certificated AMTS should have the flexibility to develop course content items that are not prescribed by the FAA, and add those course content

⁵ ICAO defines competency as “[a] combination of skills, knowledge, and attitudes required to perform a task to the prescribed standard.” Doc 9868, Procedures for Air Navigation Services, Training, 2nd ed. (Oct. 11, 2016).

⁶ 59674 FR at 59676

items, which must be approved, to the operations specification. The FAA therefore proposes § 147.22(b)(3) to allow schools to develop additional course content items in its approved curriculum. Additional course content items would be listed in Table II of the appropriate operations specification. For each additional course content item the school develops, the FAA proposes to require the school to define the applicable competencies, to include the knowledge, skills, and observable behaviors to which the student would be trained and assessed.

2. Training, Competency Assessments, and Remedial Training

Under a CBT program, rather than focusing on the number of instructional hours received in a classroom, schools would be focused on training students to achieve the competencies, which include knowledge, skills, and observable behaviors, that are necessary to perform as a certificated mechanic. A CBT curriculum would allow schools to train students in a more individualized manner based on the students' knowledge and skill levels. Students would advance in the areas they demonstrate competency and would receive additional training in the areas they are deficient. This competency-based structure would enable students to advance at their own pace while placing emphasis on demonstrated proficiency rather than the instruction time.

A CBT curriculum would train a student to achieve the applicable competencies, assess whether the student can demonstrate the applicable competencies, and conduct remedial training in areas in which the student has failed to demonstrate the applicable competencies. Therefore, the FAA is proposing training requirements in § 147.22(c), assessment requirements in § 147.22(d), and remedial training requirements in § 147.22(e).

Proposed § 147.22(c)(1) would require the AMTS to train each student to achieve the competencies defined in its curriculum. The FAA proposes to allow a CBT curriculum to consist

of a variety of teaching methods that are not based on hours of instruction or credit hours. For example, these teaching methods may include, but are not limited to, lectures, distance learning, and practical projects in the shop or laboratory. Additionally, the FAA proposes to allow a CBT curriculum to offer group instruction, one-on-one instruction, or any combination thereof. However, the AMTS would still be required to comply with instructor to student ratios in § 147.23 and instruction equipment requirements in § 147.17(c). The FAA believes this flexibility would allow schools to tailor their teaching methods to their students.

While the FAA intends to give schools the necessary flexibility in developing their CBT curriculums, these curriculums are still required to be approved by the FAA. Therefore, under proposed § 147.22(c)(2), the FAA proposes to require the school to describe, for each course content item, various elements of its CBT curriculum. In addition to defining the applicable competencies for each course content item, the school would be required to describe which teaching methods it intends to use for each course content item, including any classroom, distance learning, and laboratory or shop requirements. The school would also be required to describe which portions of the curriculum would be given in a group setting and which would be given one-on-one. The FAA also believes a school should be required to define its order of instruction in its CBT curriculum. The order of instruction is necessary because under a CBT program a student should not advance to a related course content item or subject area until the student has demonstrated mastery of the current subject matter. A related course content item or subject area is one for which the school has defined a prerequisite or precursor for subsequent learning. Furthermore, while a school would have the flexibility to determine when a test or assessment should be conducted under a CBT program, the FAA proposes to require each school to describe the schedule of tests and assessments for each course content item. The school would

also be required to describe the objective testing and grading criteria it would use in conducting any tests or assessments.

Proposed § 147.22(d) would include the requirements for competency assessments. The FAA believes that competency assessments are a key element in a CBT program because they measure the effectiveness of the training, the student's comprehension of the material, and the student's knowledge and skill level in the course content item being assessed. Each school must determine the scoring guide(s) that would be used to conduct each competency assessment. By assessing whether a student has achieved the competencies defined in the CBT curriculum, the school would determine whether the student needs additional training in a certain area.

Under proposed § 147.22(d), each school conducting a CBT program would be required to assess whether its students can demonstrate the applicable competencies for each course content item. The FAA proposes to allow the school to determine when and how it would assess its students; however, these details must be described in its CBT program. Additionally, the school must develop a series of assessments that, in their totality, assess each course content item; determine whether the student can demonstrate all applicable competencies; and are consistent with the required teaching levels specified in the operations specification.

In accordance with § 147.22(d)(4), a school may find a student competent when the student can demonstrate each applicable competency, with respect to the course content item being assessed, at a minimum of 70 percent. A generally accepted academic standard for passing is a minimum of 70 percent. This is the current standard used by the FAA to determine adequate knowledge and skill for airmen. Certificated AMTSs would have the discretion to use a standard that exceeds 70 percent, provided the standard is defined in the school's approved CBT program.

Under proposed § 147.22(d)(5), the FAA would allow issuance of a graduation certificate or certificate of completion when the student can demonstrate successful completion of each competency outlined in the student's curriculum. The school would still be required to comply with § 147.35 (as proposed in the NPRM). Thus, the school would be required to provide a graduation certificate or certificate of completion to every student it graduates. The certificate would be required to show the date of graduation, the approved curriculum, and an official of the school would be required to authenticate it. The FAA seeks comment on whether the graduation certificate should also include the school's name and air agency certificate number.

Because the objective of CBT is to train each student to achieve the applicable competencies, to include knowledge, skill, and observable behaviors, the FAA proposes to require remedial training in any course content item for which the student has failed to demonstrate competency during the required assessment. The FAA proposes requirements governing remedial training in § 147.22(e). At the conclusion of a competency assessment, the school would determine whether remedial training is necessary in accordance with proposed § 147.22(e). If a student fails to demonstrate competency of a course content item in accordance with the standard specified in proposed § 147.22(d)(4), the school would be required to provide additional training and reassessment in areas of deficiency until the student can demonstrate the knowledge, skills, and observable behaviors that reflect the competencies at a minimum of 70 percent. The FAA emphasizes that a student would not be allowed to advance to a subsequent related course content item or subject area until that student has achieved the competencies in the subject area in which they were found deficient.

3. Students with Prior Training or Experience

The FAA received several comments regarding how a CBT program would benefit an individual with prior training or experience. One commenter explained how qualified mechanics from other fields are currently required to sit through redundant training to meet the prescribed number of hours under the traditional instruction hour curriculum. The FAA sees some minor redundancies in training when comparing, for example, an aircraft mechanic to an automobile mechanic. However, these redundancies are limited in scope. Because aviation maintenance practices and procedures are governed by a specific and unique regulatory framework, it is essential that students with maintenance experience in other fields receive comprehensive and complete training within AMTS curriculums. The FAA proposes to require a pre-training assessment for students that are seeking credit for prior training or experience in aviation maintenance, such as in a certain subject area or specific course content items. Persons with non-aviation related mechanical experience or training would not be eligible for pre-training assessments. Individuals must receive specific training relating to aircraft and aircraft safety because of the hazards, risks, and responsibilities associated with aviation maintenance. Students with non-aviation experience or training still stand to benefit from a CBT program, progressing at their own pace rather than attending class for the required number of instructional hours.

Proposed § 147.22(f)(1) would allow a school to conduct a pre-training assessment of the student's initial competencies. Because a student with prior training or experience should be trained and assessed to the same standard as the other students, the FAA proposes to require the pre-training assessment to meet the competency assessment requirements of § 147.22(d)(1), as applicable to the course content item being assessed. If during a pre-training assessment, the student fails to demonstrate each applicable competency, with respect to the course content item

being assessed, at a minimum of 70 percent, the school may not credit the student with competency in the course content item(s). At the completion of a pre-training assessment, the student would receive an individualized curriculum that would include only those subject areas and/or course content items where competency was not demonstrated. After the curriculum is determined for the individual, the student should receive training, competency assessments, and remedial training (if applicable) in the same form and manner as the other students.

Proposed § 147.22(f) is intended to allow individuals with prior training or experience to advance quickly through certain subject areas or course content items, provided they can demonstrate that they have already achieved the applicable competencies.

4. Instructors

The FAA believes that transitioning to the proposed CBT program from a traditional curriculum based on instructional hours would affect the way instructors teach and assess their students. Currently, instructors teach their students to achieve knowledge and skill for each course content item. CBT adds the dynamic of observable behaviors as applicable to a particular course content item and the competencies associated with it. Under the proposed CBT program, the instructors' emphasis would be on training and assessing students based on their knowledge, skills, and observable behaviors with respect to each course content item. Instructors must know and understand the competencies that are applicable to each course content item and the associated observable behaviors that the student must demonstrate.

For the reasons stated above, the FAA believes it would be necessary to require the schools to train their instructors on the school's CBT program, including delivery methods and assessment techniques. Additionally, the FAA believes schools should evaluate the instructors' competencies to ensure the instructors are qualified to provide CBT training and assessments.

Therefore, proposed § 147.22(g) would require a CBT program to describe how the school will train and evaluate its instructors.

Furthermore, the FAA recognizes the concerns from one commenter regarding the instructor-to-student ratio in a CBT curriculum. The commenter explained how a CBT curriculum would require a lesser ratio of students to instructor in order to accommodate students progressing at different rates. The commenter further stated that, with practical application projects, a CBT program may require one-on-one instruction.

As proposed in § 147.22(c)(1), a CBT program may include group instruction, individualized instruction, or any combination thereof. For any group instruction offered under a CBT program, the FAA proposes to require schools to describe the instructor-to-student ratios that would apply, including the ratio that would apply in the laboratory or shop. The FAA is also proposing to require the CBT program to meet the requirements of proposed § 147.23, which would require at least 1 instructor for each 25 students in the shop or laboratory. The FAA believes these proposed requirements would provide schools with enough flexibility to define their own instructor to student ratio, while giving the FAA the ability to review and approve such ratios. The FAA seeks comments regarding the instructor-to-student ratios in a CBT program. Specifically, the FAA seeks comments regarding whether the FAA should impose more prescriptive requirements in proposed § 147.22 in terms of how many students should be allowed per instructor under a CBT program, taking account for the various methods of training that the instructor may provide.

5. Data Collection, Analysis and Recordkeeping

The proposal to allow CBT would introduce an entirely new method of training in the aviation maintenance industry. While the FAA believes CBT training would have several

benefits in the field, as previously discussed, requirements would be necessary to ensure the program is accomplishing its objectives. As one commenter pointed out, if the FAA allows CBT, it should be verified as effective to ensure it achieves the goal of enabling graduates to perform the duties of a FAA certificated mechanic. The primary objective of a CBT program, to prepare student mechanics for FAA certification, is the same as for the instruction hour or credit hour programs. However, a secondary objective is to better prepare student mechanics for the workplace by teaching course content items and how they relate to a competency and its observable behaviors. The FAA has concluded that a student educated in this CBT program would have a better foundation and contribute more rapidly in their future workplace.

Under proposed § 147.22(h), the FAA proposes to require each school conducting a CBT program to establish and maintain a data collection and analysis process on its students and instructors that would enable the school and the FAA to determine whether the CBT program is accomplishing its objectives. The FAA believes this proposal would benefit both the school and the FAA because it would enable the school and the FAA to identify any deficiencies in the program and adjust the CBT curriculum or instruction accordingly. This proposal would foster a better understanding of CBT curriculums and assist the FAA in its oversight of approved CBT programs.

In connection with the data collection and analysis process, the FAA proposes to require the school to maintain records reflecting the outputs of the process for a minimum of 2 years. The records would include, at a minimum, the data collected by the process, the results of the analysis, and the plans for corrective actions that were taken as a result of the analysis process. The intent is to identify deficiencies within the CBT program, and to verify that action is being

taken to correct those deficiencies. Maintaining the records for 2 years is consistent with existing AMTS recordkeeping requirements and provides sufficient data for trend analysis.

Furthermore, the FAA believes that additional recordkeeping requirements would be necessary under a CBT program to ensure that each student's progression through the CBT curriculum is clearly documented. Under a CBT program, a school would have more flexibility in developing a curriculum and students would receive competency assessments rather than traditional tests. These competency assessments would assess whether the student may progress to subsequent course content items. The FAA notes that competency assessments are a new concept in the regulations and are not encompassed by the recordkeeping requirements of proposed § 147.33. Therefore, the FAA proposes, in § 147.22(i), to require each certificated AMTS conducting an approved CBT curriculum to establish and maintain for each student enrolled records that show the student's progression through his or her individual curriculum, including documentation of any pre-training assessments and competency assessments. The FAA believes this proposed recordkeeping requirement would ensure that the proper records verifying the student's completion of the curriculum, or portions thereof, would be retained. The FAA notes that the AMTS would also be required to meet the record requirements of § 147.33. The FAA may find that changes are needed to a CBT program to ensure its effectiveness. Under performance of an AMTS is usually observed by an FAA inspector during on-site surveillance or through the test results of recently graduated students. The 8080-08 School Norms vs National Passing Norms Report⁷ published quarterly is a useful tool for the school and the inspector to identify subject areas needing improvement. An AMTS is expected to maintain compliance with the standard in § 147.37. If the FAA observes that the CBT program is not producing the desired

⁷ Quality of instruction results are published quarterly in the 8080-08 School Norms vs National Passing Norms Report. These reports provide AMTS students testing results for the specific subject areas in which they are tested.

results the certificate holder will be notified and must make the necessary corrections. The FAA would revise Advisory Circular (AC) 147-3, which provides guidance to comply with the proposed rules.⁸

B. Satellite Training Locations

In the NPRM, the FAA did not propose to permit satellite training locations for AMTSs. However, the Aviation Technician Education Council (ATEC) suggested a revision to proposed § 147.13 to permit a school to conduct operations outside of its primary location, such as at high schools. ATEC recommended language that would allow a school to make educational programs more readily available through partnerships with secondary education institutions. ATEC noted that several programs currently exist that help recruit future technicians before they graduate from high school, and its suggested change would ensure that all schools have the same, consistent opportunity to expand programs to local high school students.

The FAA agrees with ATEC's comment and therefore, proposes to add a new section, § 147.14, to facilitate satellite training locations for AMTSs. A satellite training location would be a training location away from the school's primary location. Under the proposal, an AMTS could add one or more satellite training locations. A satellite training location may be either dependent, which means it would not hold its own AMTS certificate under part 147, or independent. An independent satellite training location would hold its own AMTS certificate and be held responsible for complying with the requirements of part 147.

To conduct operations at a satellite training location, a certificated AMTS would be required to apply to the FAA at least 60 days before the training would commence. The application would be required to include the following: a description of the proposed curriculum; a list of the facilities, including their physical addresses, and the materials and equipment to be

⁸ See Docket No. FAA-2015-3901.

used; a list of the instructors to be used, including the kind of certificate and ratings held by each, and their certificate numbers; and the maximum number of students to be enrolled at any one time.⁹

Both dependent and independent satellite training locations would be approved through a new operations specification, which would be issued to the parent AMTS (the certificate holder), provided the satellite training location meets the applicable requirements of part 147. The parent AMTS OpSpec would list all of the parent's authorized satellite training locations. For each satellite training location, the operations specifications would list the person responsible for operations conducted at the location. For dependent satellite training locations, the operations specifications would also list the curriculum, or portion thereof, that the satellite is authorized to teach. The FAA notes that the parent AMTS operations specifications would not list the curriculum that the independent satellite training location would be authorized to teach because an independent satellite training location would have its own part 147 certificate and thus its own operations specifications outlining its approved curriculum. This approved curriculum, however, is expected to mirror that of the parent AMTS curriculum. The parent AMTS must develop adequate procedures describing satellite operations acceptable to the FAA, and make them available to each satellite location. For example, procedures would be necessary to address the sharing of equipment, tools, and personnel.

Both types of satellite training locations must use the curriculum and procedures of the parent AMTS. The independent satellite training locations, however, may implement differences in the curriculum and procedures, provided those differences are documented and accepted or approved by the FAA, as applicable. Satellite training locations may also share tools, equipment,

⁹ These requirements are contained in § 147.5(a)(1) through (5), as proposed in the NPRM.

and instructors with the parent AMTS and with other satellites of the parent AMTS.¹⁰ The proposed requirements that would apply to both dependent and independent satellite training locations are contained in § 147.14(a).

The first kind of satellite is a dependent satellite training location. The dependent satellite training location would be managed by the parent AMTS and would operate under the part 147 certificate issued to the parent AMTS. Therefore, the parent AMTS would be responsible for ensuring the dependent satellite training location maintains compliance with all part 147 requirements. Under this proposed structure, a dependent satellite (e.g. a trade school, a high school, or other training location)¹¹ would for example, offer some of the courses in the AMTSs' General Curriculum. The satellite training location would be issued a unique designator code to identify its satellite status. The proposed requirements for dependent satellite training locations are contained in § 147.14(b). The FAA proposes to include a provision in § 147.14(b)(3) that would subject dependent satellite training locations to FAA inspection of facilities to determine compliance with part 147.¹²

The second kind of satellite is an independent satellite training location. As previously mentioned, an independent satellite training location would operate under its own part 147 certificate and would be responsible for ensuring its own compliance with the applicable requirements of part 147. A currently certificated AMTS may choose to be an independent satellite training location in order to have its training program under the control of a parent AMTS certificate holder. This proposed structure may be beneficial because it would allow a certificated AMTS to serve as a satellite training location without having to surrender its current

¹⁰ Instructors must be listed on either the parent AMTS OpSpec, or an independent satellite's OpSpec.

¹¹ The FAA notes that the examples listed could become independent satellites if they chose to pursue part 147 certification. This list of examples is not all-inclusive.

¹² The FAA notes that it is unnecessary to include a similar requirement for independent satellite training locations because an independent satellite training location would be operating under its own part 147 certificate and would be subject to FAA inspection.

part 147 certificate. Additionally, an independent satellite training location may find value in using a parent AMTS training program and in sharing facilities, equipment, and personnel with the parent AMTS and its other satellite locations. An AMTS that wants to become an independent satellite must use the curriculum and procedures of the parent AMTS. An independent satellite training location would already hold an air agency certificate and certificate number. Its 4-letter designator would be used to identify its satellite status. As with all certificated AMTSs, the independent satellite would be issued applicable operations specifications. Because a satellite training location must use the curriculum and procedures of the parent AMTS, and the curriculum is a function of the ratings, an independent satellite location may not hold a rating that the parent AMTS does not hold. An independent satellite training location would not be eligible to have a satellite training location of its own.

The FAA appreciates that if an AMTS is able to have a satellite training location, it could expand its capacity to educate future airframe and powerplant (A&P) mechanics, especially if offered as part of a high school program. The expansion of student mechanic training would benefit industry by helping to mitigate A&P mechanic shortages. Expanding the geographic base by allowing satellite locations may also reduce commuting times for some students.

The FAA would revise AC 147-3 to include guidance on satellite operations.¹³

C. Quality of Instruction

In the NPRM, the FAA proposed to move the quality of instruction requirements from § 147.38(a) to § 147.37. Additionally, the FAA proposed to revise the quality of instruction requirements by adding proposed § 147.37(b), which would have stated that the failure of a school to maintain the quality of instruction specified in § 147.37(a) may be the basis for suspending or revoking that school's certificate.

¹³ See Docket No. FAA-2015-3901.

Several commenters objected to the language in proposed § 147.37(b). One commenter stated “the ability of the FAA to suspend or revoke without due process in this manner should not be available.” Another commenter pointed out that the NPRM preamble did not address the new language in proposed § 147.37(b) and that it should be removed.

Though the FAA did not discuss proposed paragraph § 147.37(b) in the NPRM preamble, the proposed language would not have created a new burden or imposition on industry. Currently, if a certificated AMTS fails to meet the quality of instruction requirements in § 147.38(a), the inspector would discuss the expectations and requirements for compliance. The AMTS is then given the opportunity to correct the deficiencies by developing a corrective action plan, and implementing that plan, to achieve compliance. However, if an AMTS refuses to correct the non-compliance or fails to achieve compliance over time, the FAA may suspend or revoke the schools’ AMTS certificate.¹⁴ In light of the comments, however, the FAA recognizes that proposed § 147.37(b) was focused more on revocation and suspension of a certificate, rather than on corrective action. In an effort to be more consistent with the FAA’s compliance and enforcement policy,¹⁵ the FAA emphasizes that the failure of a school to maintain the quality of instruction requirements may be the basis for compliance action. However, the FAA has concluded that it is unnecessary to include this language in the regulation. Persons should know that any failure to comply with the regulations of 14 CFR may be the basis for a compliance action. The FAA is therefore withdrawing § 147.37(b) (as proposed in the NPRM). As a result, § 147.37(a) (as proposed in the NPRM) is now proposed § 147.37.

ATEC recommended deleting the quality of instruction requirements entirely with the justification “the schools have specific accreditation and DOE requirements, not to mention

¹⁴ An aviation maintenance technician school certificate or rating is effective until it is surrendered, suspended, or revoked. 14 CFR 147.7. *See* FAA Order 2150.3, FAA Compliance and Enforcement Program (Feb. 2, 2017).

¹⁵ FAA Order 2150.3, FAA Compliance and Enforcement Program (Feb. 2, 2017).

“customer” demands that necessitate high quality programs. Having passing norms dictated in regulation only creates additional surveillance burdens on FAA without an increase in safety.”

Because the FAA certifies and maintains oversight of AMTSs, the FAA needs to ensure that the quality of instruction received by the students is reflected positively in their FAA written knowledge tests. After a critical analysis of proposed § 147.37,¹⁶ the FAA acknowledges that requiring an AMTS to meet a norm based on relative peer performance is not particularly relevant. Comparing one school’s graduates to another school’s graduates does not effectively measure either school’s quality of instruction. The FAA believes a better measure of success would be to set a uniform standard for all AMTSs. The FAA would evaluate a school’s quality of instruction by determining whether the school’s graduates achieved the standard rather than comparing schools against one another. A generally accepted academic standard for passing is a minimum of 70 percent. This is the current standard used by the FAA to determine whether an airman has demonstrated adequate knowledge on an FAA written exam. Therefore, the FAA proposes to simplify § 147.37 to require each AMTS to ensure that, in the prior 24 calendar months, it provided instruction of sufficient quality that at least 70 percent of its graduates passed¹⁷ on the first attempt each written knowledge test leading to a certificate or rating. The Airman Testing Branch will continue to receive FAA written exam test results from the Airmen Knowledge Testing Centers and compile quarterly reports.¹⁸ The FAA will use the quarterly reports to ensure the quality of instruction required by § 147.37. The proposal does not impose any reporting requirements on an AMTS or its graduates.

D. Miscellaneous Amendment

¹⁶ The quality of instruction requirements are currently found in § 147.38(a). In the NPRM, the FAA proposed to relocate these requirements to § 147.37.

¹⁷ Under 14 CFR § 65.17(b), the minimum passing grade for each test is 70 percent.

¹⁸ https://www.faa.gov/data_research/aviation_data_statistics/test_statistics/

The FAA is also proposing a clarifying amendment to § 147.17(a)(2). Currently, § 147.17(a)(2) requires an applicant for a mechanic school certificate and rating, or for an additional rating, to have “at least one aircraft of a type currently certificated by FAA for private or commercial operation.” As explained in AC 147-3B,¹⁹ certification in this context refers to FAA type certification.²⁰ However, it has been brought to the FAA’s attention that this language, which dates back to the 1950’s,²¹ could be interpreted otherwise. For example, a person could interpret “an aircraft of a type currently certificated by the FAA” as referring to any aircraft certificated by the FAA for private or commercial operation, such as an amateur-built aircraft. The FAA believes that AC 147-3B, which states that § 147.17(a)(2) requires an AMTS to provide a type-certificated aircraft for student instruction,²² reflects the FAA’s original intent. Therefore, the FAA is proposing to revise § 147.17(a)(2) to require each certificated AMTS to provide and maintain at least one aircraft type-certificated by the FAA.

IV. Regulatory Notices and Analyses

A. Regulatory Evaluation

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 and Executive Order 13563 direct that each Federal agency shall propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 (RFA) (Public Law 96-354) requires agencies to analyze the economic impact of regulatory changes on small

¹⁹ AC 147-3B, “Certification and Operation of Aviation Maintenance Technician Schools,” (June 5, 2015).

²⁰ AC 147-3B, Section 2-10, Page 13.

²¹ Part 53 Mechanic School Certificates, Rules, Policies, and Interpretations of CAA, 18 FR 4281 (July 23, 1953). Section 53.25(b) required “at least one modern-type aircraft complete with powerplant, propeller, instruments, radio (two-way), landing lights, flares, and other items of equipment and accessories on which a mechanic might be required to work and with which he should be familiar.” *Id.* at 4283. In § 53.25-1, the CAA interpreted a modern-type aircraft as meaning “an airplane of a type currently certificated by CAA for private or commercial operation.” *Id.*

²² AC 147-3B, Section 3-14, Page 21.

entities. Third, the Trade Agreements Act (Public Law 96-39) prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing United States (U.S.) standards, this Trade Act requires agencies to consider international standards and, where appropriate, that they be the basis of U.S. standards. Fourth, the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditure by State, local, or tribal governments, in the aggregate, or by the private sector, of \$100 million or more annually (adjusted for inflation with base year of 1995; current value is \$155 million). This portion of the preamble summarizes the FAA's analysis of the economic impacts of this proposed rule.

In conducting these analyses, the FAA has determined that this proposed rule: (1) has benefits that justify its costs, (2) is not an economically "significant regulatory action" as defined in section 3(f) of Executive Order 12866, (3) is not "significant" as defined in DOT's Regulatory Policies and Procedures; (4) would not have a significant economic impact on small entities; (5) would not create unnecessary obstacles to the foreign commerce of the U.S.; and (6) would not impose an unfunded mandate on state, local, or tribal governments, or on the private sector by exceeding the threshold identified above. These analyses are summarized below.

Affected Population

In the NPRM, the FAA estimated 162 part 147 AMTSs would be affected by the proposed rule. In this SNPRM, the FAA estimates the same affected AMTSs have the option of either implementing competency-based training and/or to set up satellite training locations.

Additional Flexibilities

This SNPRM provides additional flexibilities to the NPRM published October 2, 2015, provisions proposed in the NPRM not discussed here are unchanged from the NPRM. More specifically, the SNPRM would expand the scope of that proposal to allow CBT and satellite training locations, which are voluntary provisions, and it would also eliminate the national passing norms specified in the quality of instruction requirements.

Voluntary Provisions

Under a CBT program, rather than focusing on the number of instructional hours received in a classroom, AMTSs would be focused on training students to achieve the competencies, which include knowledge, skills, and observable behaviors, that are necessary to perform as a certificated mechanic. A CBT curriculum would allow schools to train students in a more individualized manner based on the students' knowledge and skill level. Students would advance in the areas they demonstrate competency in and would receive additional training in the areas in which they are found deficient. This competency-based structure would enable students to advance at their own pace while placing emphasis on demonstrated proficiency rather than the instruction time.

The FAA recognizes that if an AMTS is able to have a satellite training location, then it could expand its capacity to educate future A&P mechanics, especially if offered with a high school program. The expansion of student mechanic training would benefit industry by expanding educational opportunities, which would mitigate A&P mechanic shortages. Additionally, if a school has the option of providing some of its training through satellite training locations, then its geographic base can expand, along with the opportunity to partner with high schools in order to expand the recruiting age envelope. Expanding the geographic base by allowing satellite locations may also reduce commuting times for some students.

Providing flexibility to AMTSs to use CBT may produce cost savings and generate benefits. For instance, CBT would allow AMTSs to pre-screen applicants for competencies they possess at the time of application, and provide relief to those applicants for the corresponding curriculum elements. CBT may also allow the AMTS to focus on the competencies for which their students' require more remedial attention, providing a more individualized and higher-quality training for its students. At this time, the FAA does not have data to quantitatively assess whether the relief provided by the pre-assessment of student competencies would outweigh the costs associated with the additional care and attention provided to students who require remedial attention. Nevertheless, the FAA believes that CBT would allow AMTSs to concentrate resources on where they will provide the most benefits.

The FAA acknowledges that there would be some startup costs incurred for some schools to transition over to CBT. However, the FAA believes that because this SNPRM provides CBT as an additional flexibility, rather than a requirement, it can safely presume that any utilization of CBT would provide benefits or cost savings that exceed the costs. Similarly, the FAA acknowledges that AMTSs would incur costs to set up satellite locations, but the FAA presumes that AMTSs would only incur those costs if there were sufficient demand to recover them.

CBT and satellite training locations are voluntary provisions. Therefore, the FAA assumes the utilization of these flexibilities would produce benefits net of costs.

Quality of Instruction

The FAA proposal to eliminate the national passing norms specified in the quality of instruction requirements would result in the elimination of some national data from the 8080-08

report.²³ The FAA estimates this would provide minor cost savings associated with reduced paperwork for the FAA as estimated in the Paperwork Reduction Act section.

Cumulative Impacts

The total estimated cost savings of the NPRM over the analysis period would be about \$6.8 million in 2016 dollars.²⁴ This stream of cost savings has a present value of \$3.4 million when discounted at seven percent. The total estimated cost savings of the SNPRM over the analysis period would be minimal. The following table presents the cumulative cost savings over 10 years for the NPRM and SNPRM.

Cost Savings Over 10 years of NPRM and SNPRM (in 2016 Dollars)		
<u>NPRM</u>		
	<u>Present Value at 7%</u>	<u>Annualized at 7%</u>
Changes to the curriculum hours	\$6,567,198	\$935,038
Exemptions	\$159,608	\$22,725
<u>Curriculum Revisions</u>	<u>-\$3,300,950</u>	<u>-\$469,989</u>
Total	\$3,425,856	\$487,774
<u>SNPRM</u>		
	<u>Present Value at 7%</u>	<u>Annualized at 7%</u>
Competency-based training	Optional	Optional
Satellite training locations	Optional	Optional
<u>Quality of instruction</u>	<u>Minimal</u>	<u>Minimal</u>
Total	Minimal	Minimal

Therefore, the cumulative impact of this SNPRM will be minimal, and a regulatory evaluation was not prepared. The FAA requests comments with supporting justification about the FAA determination of minimal impact.

B. Regulatory Flexibility Determination

²³ As a result of this change the National Applicants and the National Norm columns would be eliminated from the 8080-08 report.

²⁴ U.S. DOT/FAA - Regulatory Evaluation - Aviation Maintenance Technician Schools - NPRM 14 CFR Parts 147, <https://www.regulations.gov/searchResults?rpp=25&po=0&s=2015-3901-0093&fp=true&ns=true>

The RFA establishes “as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation.” To achieve that principle, the RFA requires agencies to solicit and consider flexible regulatory proposals and to explain the rationale for their actions. The RFA covers a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the agency determines that it will, the agency must prepare a regulatory flexibility analysis as described in the Act.

The FAA identified a total of 19 AMTSs with less than 1,500 employees which are classified as small entities. The FAA believes that this SNPRM would not have a significant economic impact on these small AMTSs because any costs they would voluntarily incur would be small and offset by cost savings.

If an agency determines that a rulemaking will not result in a significant economic impact on a substantial number of small entities, the head of the agency may so certify under section 605(b) of the Regulatory Flexibility Act. Therefore, as provided in section 605(b), based on the previous analysis the head of the FAA certifies that this rulemaking will not result in a significant economic impact on a substantial number of small entities.

C. International Trade Impact Assessment

The Trade Agreements Act of 1979 (Public Law 96-39), as amended by the Uruguay Round Agreements Act (Public Law 103-465), prohibits Federal agencies from establishing

standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to these Acts, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the U.S., so long as the standard has a legitimate domestic objective, such as the protection of safety, and does not operate in a manner that excludes imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards. The FAA has assessed the potential effect of this proposed rule and determined that the objective would only affect domestic firms therefore would not create unnecessary obstacles to the foreign commerce of the United States.

D. Unfunded Mandates Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (Public Law 104-4) requires each Federal agency to prepare a written statement assessing the effects of any Federal mandate in a proposed or final agency rule that may result in an expenditure of \$100 million or more (in 1995 dollars) in any 1 year by State, local, and tribal governments, in the aggregate, or by the private sector; such a mandate is deemed to be a "significant regulatory action." The FAA currently uses an inflation-adjusted value of \$155 million in lieu of \$100 million. This proposed rule does not contain such a mandate; therefore, the requirements of Title II of the Act do not apply

E. Paperwork Reduction Act

The Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)) requires that the FAA consider the impact of paperwork and other information collection burdens imposed on the public. According to the 1995 amendments to the Paperwork Reduction Act (5 CFR 1320.8(b)(2)(vi)), an agency may not collect or sponsor the collection of information, nor may it

impose an information collection requirement unless it displays a currently valid Office of Management and Budget (OMB) control number.

On April 3, 2018, the FAA published a notice proposing to amend the OMB supporting statement for information collection, OMB Control Number: 2120-0040, which would update the information collection to account for recordkeeping burdens in part 147 that were not previously accounted for. As part of the part 147 proposed rulemaking, the FAA has identified provisions in the NPRM and SNPRM with Paperwork Reduction Act (PRA) implications that, if finalized as proposed, will require the FAA to make additional amendments to information collection OMB Control Number: 2120-0040. The FAA notes that the part 147 NPRM, which published on October 2, 2015,²⁵ did not discuss the proposed provisions that would require changes to the information collection burden. Therefore, this document discusses both the NPRM and SNPRM provisions that would have PRA implications.

The Safety Standards, Aircraft Maintenance Division has determined that three primary positions at an AMTS will be performing the information and record collection activities. They are the school's Director, at a salary of \$56/hour, an Instructor, at a salary of \$28/hour, and an Administrative Assistant, at a salary of \$23/hour.²⁶ A fringe benefit factor of \$1.17²⁷ was applied to the relevant median salary.

The NPRM proposed to remove current §§ 147.36, 147.37, and 147.38 because they are unnecessary in light of the corresponding initial certification requirements, which are continuing and ongoing. Therefore, the information collections currently required by §§ 147.36, 147.37,

²⁵ 80 FR 59674

²⁶ Wage rates for these positions came from the Department of Labor, Bureau of Labor Statistics, May 2016 NAICS 481000 - Air Transportation codes for the AMTS Director, #11-3131, AMTS Instructor #25-0000, and AMTS Administrative Assistant #43-6014.

²⁷ Volpe Memorandum, Estimating Total Cost of Compensation based on Wage Rate or Salaries, Jan. 30, 2014.

and 147.38 would now be associated with §§ 147.23, 147.13, and 147.21 respectively. No additional information collection burden has been identified.

The FAA introduced operation specifications for part 147 by Notice N 8900.278 on November 21, 2014. Certificated part 147 schools were required to have their OpSpecs authorized by July 21, 2015. Originally, there were 14 OpSpecs, but A012 Affiliated Designated Mechanic Examiners (DME) has since been archived. The pending 2018 revision of OMB information collection control #2120-0040 accounts for the 13 OpSpec paragraphs currently required at initial certification.

Part 147 Operations Specifications

Part 147 OpSpecs	Operations Specifications (OpSpecs) Title
A001	Issuance and Applicability (Mandatory)
A002	Definitions and Abbreviations (Mandatory)
A003	Aviation Maintenance Technician School Ratings (Mandatory)
A004	Summary of Special Authorizations and Limitations (Mandatory)
A005	Exemptions (Optional)
A006	Management Personnel (Mandatory)
A007	Designated Persons (Mandatory)
A008**	Satellite Training Locations (Optional)
A012	Affiliated DMEs (Archived)
A013	Instructors (Mandatory)
A015*	Facilities, equipment, and materials (Mandatory)
A025	Recordkeeping System (Mandatory)
A026	Authorizations/Limitations (Optional)
B002	Required Minimum Curriculum for General (Part 147 Appendix B) (Mandatory)
B003	Required Minimum Curriculum for Airframe (Part 147 Appendix C) (Mandatory)
B004	Required Minimum Curriculum for Powerplant (Part 147 Appendix D) (Mandatory)
B005**	Competency-based training (Optional)

*= proposed by NPRM, **= proposed by SNPRM

The FAA proposed in the NPRM a new section, § 147.9 Operations Specifications, that would provide, among other things, each AMTS's operations specifications contain its complete curriculum, the course content items, and teaching levels required under each of the subjects specified in the part 147 appendices. The NPRM would require an additional mandatory OpSpec paragraph A015 to list the facilities, equipment and materials used by the AMTS. The NPRM also has a proposed requirement that would amend OpSpec A013, Instructors, due to the proposed changes to § 147.23 for schools that provide specially qualified instructors who are not FAA certificated mechanics to teach general, airframe, powerplant, or specialized subjects.

Furthermore, the SNPRM proposes to add two additional OpSpecs: an optional OpSpec A008 for satellite training locations as covered in proposed § 147.14, and an optional OpSpec B005 for the competency-based training curriculum, proposed by § 147.22. The estimated annual changes reflects the estimated number of new part 147 applicants but does not include AMTSs seeking to make changes as a result of this rulemaking.

The FAA estimates the additional annual information collection burden for proposed § 147.9, which accounts for the OpSpec changes proposed in both the NPRM and SNPRM, would be 48 hours with an estimated annual cost of \$2,688.

§ 147.9 Provision	Basis	Estimated Annual Changes	Director @ \$56/hour		Instructor @ \$28/hour		Administrative @ \$23/hour		Estimated Annual Cost
			Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	
Preparation of OpSpec A008 AMTS Satellite Training Locations	Initial Certification	5	2	10					\$560
Preparation of OpSpec A015 Facilities Equipment and Materials	Initial Certification	5	2	10					\$560
Preparation of OpSpec B005 Competency-Based Training (CBT) Program	Initial Certification	5	4	20					\$1120
§ 147.9 estimated annual initial certification reporting burden				40		0		0	\$2240

Amendment of OpSpec A008 AMTS Satellite Training Locations	On Occasion	6	.25	1.5					\$84
Amendment of OpSpec A013 Instructors	On Occasion	20	.25	5					\$280
Amendment of OpSpec A015 Facilities Equipment and Materials	On Occasion	2	.25	.5					\$28
Amendment of OpSpec B005 Competency-Based Training (CBT) Program	On Occasion	4	.25	1					\$56
§ 147.9 estimated annual post certification reporting burden				8	0	0	0	0	\$448
§ 147.9 estimated total annual reporting burden				48	0	0	0	0	\$2688

The SNPRM proposes new § 147.14, which would provide an option to allow a certificated AMTS to have or operate as a satellite training location. Under the proposal, an AMTS could add one or more satellite training locations. A satellite training location may be either dependent, which means it would not hold its own AMTS certificate under part 147, or independent. An independent satellite training location would hold its own AMTS certificate and be held responsible for complying with the requirements of part 147. The proposal would require any satellite training location(s) to be authorized by OpSpec A008. The parent AMTS would be required to make application to have a satellite training location. The FAA estimates the additional annual information collection burden for proposed § 147.14 would be 374 hours with an estimated annual cost of \$20,086.

§ 147.14 Provision	Basis	Estimated Annual Changes	Director @ \$56/hour		Instructor @ \$28/hour		Administrative @ \$23/hour		Estimated Annual Cost
			Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	
Apply for additional training location	Initial Certification	5	60	300			4	20	\$17260
Changes to additional training locations	On occasion	6	8	48			1	6	\$2826
§ 147.14 estimated total annual reporting burden				348		0		26	\$20,086

The SNPRM proposes in new § 147.22 an option to allow AMTSs to deliver their approved curriculums using a CBT curriculum. The CBT curriculum must be FAA approved and authorized using OpSpec B005. A CBT program would require initial development and amendment on occasion by the AMTS. Ongoing CBT requirements would include:

- Pre-training assessment for persons with previous aviation training or experience. Proposed § 147.22(f)
- Record-keeping for CBT training and assessment of AMTS instructors. Proposed § 147.22(g)
- Establish and maintain a data collection and analysis process on its students and instructors that would enable the school and the FAA to determine whether the CBT program is accomplishing its objectives. Proposed § 147.22(h)
- A certificated AMTS conducting an approved CBT curriculum must establish and maintain, for each student enrolled, records that show the student’s progression through his or her individual curriculum, including documentation of any pre-training assessments and competency assessments. Proposed § 147.22(i)

The FAA estimates the additional annual information collection burden for proposed § 147.22 would be 1,315 hours with an estimated annual cost of \$63,315

§ 147.22 Provision	Basis	Estimated Annual Changes	Director @ \$56/hour		Instructor @ \$28/hour		Administrative @ \$23/hour		Estimated Annual Cost
			Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	
Create CBT Program	Initial Certification	5	80	400					\$22400
Revise CBT Program	On Occasion	4	10	40					\$2240

Records of Instructor Training and Assessment	Ongoing	35	5	175			1	35	\$10605
CBT Data Collection and Analysis	Ongoing	35	10	350	2	70	1	35	\$22365
CBT Student assessment, enrollment and progress records.	Ongoing	35			5	175	1	35	\$5705
§ 147.22 estimated total annual reporting burden				965		245		105	\$63315

The NPRM proposed to modify § 147.23 so that each school would be required to maintain and keep in its operations specifications an up-to-date list of the names and qualifications of all its instructors. The FAA estimates the additional annual information collection burden for proposed § 147.23 is 30 hours with an estimated annual cost of \$1,350.

§ 147.23 Provision	Basis	Estimated Annual Changes	Director @ \$56/hour		Instructor @ \$28/hour		Administrative @ \$23/hour		Estimated Annual Cost
			Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	
Maintain a list of the names and qualifications of all AMTS instructors.	Ongoing	40	.5	20			.25	10	\$1350
§ 147.23 estimated total annual reporting burden				20		0		10	\$1350

The NPRM proposed § 147.31(f) to permit a student who had successfully completed the general curriculum to take the general written knowledge test even if the student had not met the experience requirements of 14 CFR 65.77. The school would be required to prepare and issue a Certificate of Completion to identify students who are eligible to take the written general knowledge test. An official of the school would be required to authenticate the certificate.

Also proposed in the NPRM was § 147.31(g) that would provide an option for an AMTS to offer some of their approved curriculum using distance learning instruction. The approval for a distance learning program would be authorized by OpSpec A026. This OpSpec was not

counted as a NPRM or SNPRM affected change since it was available prior to the publication of the NPRM.

The FAA estimates the additional annual information collection burden for proposed § 147.31 would be 5,011 hours with an estimated annual cost of \$199,153.

§ 147.31 Provision	Basis	Estimated Annual Changes	Director @ \$56/hour		Instructor @ \$28/hour		Administrative @ \$23/hour		Estimated Annual Cost
			Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	Estimated Hours per change	Estimated Annual Hours	
Prepare Certificate of Completion for student eligible to take written general knowledge test	Ongoing	9800	.25	2450			.25	2450	\$193,550
Develop and Create a distance learning program and submit for FAA approval.	Initial	1	60	60	10	10	2	2	\$3686
Amend Distance Learning Program	On Occasion	3	10	30	2	6	1	3	\$1917
§ 147.31 estimated total annual reporting burden				2540		16		2455	\$199,153

The cumulative estimated annual information collection burden for the NPRM and SNPRM, if adopted as proposed, would be 6,778 hours with an estimated cost of \$286,592.

Cumulative estimated burden of new and revised sections of NPRM & SNPRM	Director @ \$56/hour Estimated Annual Hours	Instructor @ \$28/hour Estimated Annual Hours	Administrative @ \$23/hour Estimated Annual Hours	Estimated Annual Cost
§ 147.9 Operations Specifications	48			\$2688
§ 147.14 Satellite Training Locations	348		26	\$20086
§ 147.22 Competency-Based Training	965	245	105	\$63315
§ 147.23 Instructor Requirements	20		10	\$1350
§ 147.31 Attendance and enrollment, test, and credit for prior instruction or experience	2540	16	2455	\$199,153
Estimated annual reporting burden of new rule	3921	261	2596	\$286,592

Paperwork Impact to the Federal Government

The FAA proposal to eliminate the national passing norms specified in the quality of instruction requirements would result in the elimination of some national data from the 8080-08 report.²⁸ The FAA estimates that the FAA would save about 3 hours per quarter from the elimination of the aforementioned data. FAA statisticians who produce this report are at an FV H level, averaging an hourly wage rate of \$37.13.²⁹ The fringe benefit for the government is 36 percent;³⁰ thus the fully-loaded wage rate is \$50.50. The FAA estimates 12 fewer annual hours and annual cost saving of \$606 for provision § 147.31.

§ 147.31 Provision	FAA Statistician @\$50.50/hour Estimated Annual Hours	Estimated Annual Cost Savings
Eliminate the national passing norms specified in the quality of instruction requirements	12	\$606

The FAA is soliciting comments to—

- (1) Evaluate whether the proposed information requirement is necessary for the proper performance of the functions of the FAA, including whether the information will have practical utility;
- (2) Evaluate the accuracy of the FAA's estimate of the burden;
- (3) Enhance the quality, utility, and clarity of the information to be collected; and

²⁸ As a result of this change the National Applicants and the National Norm columns would be eliminated from the 8080-08 report.

²⁹ Mid-range salary of 2017 FV-H level divided by 2,080 hours. Accessed on December 5, 2017 from https://my.faa.gov/employee_services/pay_perf/pay.html.html#plansTables.

³⁰ Memorandum “Update to Civilian Position Full Fringe Benefit Cost Factor, Federal Pay Raise Assumptions, and Inflation Factors used in OMB Circular No. A-76, ‘Performance of Commercial Activities,’” 3/11/2008, page 2.

(4) Minimize the burden of collecting information on those who are to respond, including by using appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Individuals and organizations may send comments on the information collection requirement to the address listed in the ADDRESSES section at the beginning of this preamble by [INSERT DATE 60 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

Comments also should be submitted to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention: Desk Officer for FAA, New Executive Building, Room 10202, 725 17th Street, NW., Washington, DC 20053.

F. International Compatibility and Cooperation

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to conform to ICAO Standards and Recommended Practices to the maximum extent practicable. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and has identified no differences with these proposed regulations.

G. Environmental Analysis

FAA Order 1050.1F identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 5-6.6 of FAA Order 1050.1F and involves no extraordinary circumstances.

V. Executive Order Determinations

A. Executive Order 13771, Reducing Regulation and Controlling Regulatory Costs

This proposed rule is expected to be an Executive Order 13771 deregulatory action. Details on the flexibilities and potential cost savings of the NPRM rule can be found in the NPRM Regulatory Evaluation.

B. Executive Order 13132, Federalism

The FAA has analyzed this proposed rule under the principles and criteria of Executive Order 13132, Federalism. The agency has determined that this action would not have a substantial direct effect on the States, or the relationship between the Federal Government and the States, or on the distribution of power and responsibilities among the various levels of government, and, therefore, would not have Federalism implications.

C. Executive Order 13211, Regulations that Significantly Affect Energy Supply, Distribution, or Use

The FAA analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use (May 18, 2001). The agency has determined that it would not be a “significant energy action” under the executive order and would not be likely to have a significant adverse effect on the supply, distribution, or use of energy.

VI. Additional Information

A. Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The agency also invites comments relating to the economic, environmental, and energy or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain

the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments it receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments it receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The agency may change this proposal in light of the comments it receives.

Proprietary or Confidential Business Information: Commenters should not file proprietary or confidential business information in the docket. Such information must be sent or delivered directly to the person identified in the FOR FURTHER INFORMATION CONTACT section of this document, and marked as proprietary or confidential. If submitting information on a disk or CD ROM, mark the outside of the disk or CD ROM, and identify electronically within the disk or CD ROM the specific information that is proprietary or confidential.

Under 14 CFR 11.35(b), if the FAA is aware of proprietary information filed with a comment, the agency does not place it in the docket. It is held in a separate file to which the public does not have access, and the FAA places a note in the docket that it has received it. If the FAA receives a request to examine or copy this information, it treats it as any other request under the Freedom of Information Act (5 U.S.C. 552). The FAA processes such a request under DOT procedures found in 49 CFR part 7.

B. Availability of Rulemaking Documents

An electronic copy of rulemaking documents may be obtained from the Internet by—

1. Searching the Federal eRulemaking Portal (<http://www.regulations.gov>);
2. Visiting the FAA's Regulations and Policies web page at http://www.faa.gov/regulations_policies or
3. Accessing the Government Printing Office's web page at <http://www.gpo.gov/fdsys/>.

Copies may also be obtained by sending a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue SW, Washington, DC 20591, or by calling (202) 267-9677. Commenters must identify the docket or notice number of this rulemaking.

All documents the FAA considered in developing this proposed rule, including economic analyses and technical reports, may be accessed from the Internet through the Federal eRulemaking Portal referenced in item (1) above.

List of Subjects in 14 CFR Part 147

Aircraft, Airmen, Educational facilities, Reporting and recordkeeping requirements, Schools.

The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend chapter I of title 14, Code of Federal Regulations as follows:

PART 147-AVIATION MAINTENANCE TECHNICIAN SCHOOLS

1. The authority citation for part 147 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44707-44709.

2. Add § 147.14 to read as follows:

§ 147.14 Satellite training locations.

(a) Except as specified in paragraph (c)(5) of this section, the holder of an aviation maintenance technician school certificate may, with FAA approval, conduct training at either a dependent satellite training location in accordance with paragraph (b) of this section, or at an independent satellite training location in accordance with paragraph (c) of this section, provided the following requirements are met—

(1) The parent aviation maintenance technician school must make an application for a satellite training location in a form and manner prescribed by the FAA at least 60 days prior to the intended start date of training. The application must include the scheduled training start date and the content specified in § 147.5(a)(1) through (4) of this part;

(2) The parent aviation maintenance technician school's operations specifications must include the name and physical address of the satellite training location and the person with responsibility for operations at the satellite training location;

(3) The parent aviation maintenance technician school must develop adequate procedures describing satellite operations acceptable to the FAA, and make them available to each satellite location;

(4) The satellite training location must use the curriculum and procedures of the parent aviation maintenance technician school, and the curriculum must meet the applicable requirements of this part;

(5) The satellite training location may share personnel and equipment from the parent aviation maintenance technician school and from each of the satellite training location(s), unless the FAA indicates otherwise; and

(6) The facilities, equipment, and personnel of the satellite training location must meet the applicable requirements of this part.

(b) *Dependent satellite training location.* Except as specified in paragraph (c)(5) of this section, the holder of an aviation maintenance technician school certificate may conduct training in accordance with its FAA-approved curriculum at a satellite training location away from the school's primary location, provided the following requirements are met—

(1) The certificate holder's operations specifications must include the course curriculum to be offered at the dependent satellite training location;

(2) The certificate holder must ensure the dependent satellite training location complies with the applicable requirements of this part; and

(3) The dependent satellite training location must allow the FAA to inspect its facility to determine compliance with this part.

(c) *Independent satellite training locations.* A certificated aviation maintenance technician school may serve as an independent satellite training location of another certificated school, provided the independent satellite training location operates under its own certificate issued by the FAA. An independent satellite training location –

(1) Must operate using the curriculum and procedures of the parent aviation maintenance technician school, except for any documented differences that have been accepted or approved by the FAA as applicable;

(2) May not hold a rating not held by the parent aviation maintenance technician school;

(3) Must meet the requirements for each rating it holds;

(4) Must ensure compliance with the applicable requirements of this part independent of the parent aviation maintenance technician school; and

(5) May not conduct training at another satellite training location.

3. Amend § 147.17 by revising paragraph (a)(2) to read as follows:

§ 147.17 Instructional equipment requirements.

(a) * * *

(1) * * *

(2) At least one aircraft type-certificated by the FAA with powerplant, propeller, instruments, navigation and communications equipment, landing lights, and other equipment and accessories on which a maintenance technician might be required to work and with which the technician should be familiar.

* * * * *

4. Amend § 147.21 by revising the introductory text of paragraph (b) to read as follows:

§ 147.21 General curriculum requirements.

* * * * *

(b) Except as provided in § 147.22 of this part, the curriculum required by paragraph (a) of this section must offer at least the number of instructional hours or credit hours for the rating sought as set forth in paragraph (b)(1) or (b)(2) of this section as follows:

* * * * *

5. Add § 147.22 to read as follows:

§ 147.22 Competency-based training curriculum.

(a) *General.* The FAA-approved curriculum required by § 147.21(a) may include competency-based training. A certificated aviation maintenance technician school may use a competency-based training curriculum provided the school obtains FAA approval of its competency-based training program through an operations specification and has shown the

requirements of this section are met. Except for the hour requirements of § 147.21(b), all other requirements of this part apply to a competency-based training program.

(b) *Structure and content.* (1) The competency-based training curriculum must cover the subjects prescribed in appendixes B, C, or D, as appropriate to the course being approved, the course content items and teaching levels included under those subject area headings in the school's operations specifications, and the applicable competencies for each of those items.

(2) Each competency-based training curriculum must define the competencies, to include knowledge, skills, and observable behaviors, that apply to each course content item and associated teaching level, which are prescribed in the school's operations specification. The students will be trained and assessed to the competencies defined in the curriculum.

(3) The certificated aviation maintenance technician school may develop additional course content items in its curriculum for FAA approval. For each additional course content item, the certificated aviation maintenance technician school must define the applicable competencies, to include the knowledge, skills, and observable behaviors, that the student will be trained and assessed to.

(c) *Training.* (1) The certificated aviation maintenance technician school must train each student to achieve the applicable competencies, with respect to each course content item as defined in the competency-based training curriculum. A competency-based training program may be defined to include—

- (i) A variety of teaching methods; and
- (ii) Group instruction, individualized instruction, or any combination thereof.

(2) For each course content item, the certificated aviation maintenance technician school must describe the following:

- (i) Theory requirements in classroom or by distance learning;
- (ii) Laboratory or shop requirements, including a description of the practical projects to be completed;
- (iii) The order of instruction;
- (iv) Whether the instruction will be individualized or given in a group;
- (v) The applicable competencies, to include knowledge, skills, and observable behaviors;
- (vi) Objective testing and grading criteria; and
- (vii) Schedule of required tests and assessments that shows the sequence of examinations for each subject in the curriculum.

(d) *Competency assessments.* (1) The competency-based training curriculum must describe how and when the school will assess whether the student can demonstrate the applicable competencies (knowledge, skills, and observable behaviors) for each course content item. The assessments must—

- (i) Assess each course content item;
- (ii) Determine whether the student can demonstrate all applicable competencies (the knowledge, skills, and observable behaviors); and
- (iii) Be consistent with the required teaching levels specified in the operations specification.

(2) The competency-based training curriculum must describe what each competency assessment will consist of, including proportions of theory to be tested, a list of tests or assessments to be given, and a description of practical projects to be completed.

(3) For each competency assessment described in the competency based training curriculum, the school must develop a scoring guide that its instructors will use to conduct the assessment.

(4) The school may find a student competent when the student can demonstrate each applicable competency, with respect to the course content item being assessed, at a minimum of 70 percent.

(5) A graduation certificate or certificate of completion will be issued only when the student competency, as defined in paragraph (d)(4) of this section, can be shown for each competency outlined in the student's individual curriculum. The certificate must meet the requirements of § 147.35.

(e) *Remedial training.* For a student who fails to demonstrate competency of a course content item in accordance with paragraph (d)(4) of this section—

(1) The school must provide additional training and reassessment in areas of deficiency until the student can demonstrate the knowledge, skills, and observable behaviors that reflect the competencies at a minimum of 70 percent; and

(2) Where order of instruction requirements are specified in an approved competency-based training program, the student may not progress to a subsequent related course content item or subject area until the student has demonstrated competency in the subject matter in which they were found deficient.

(f) *Students with prior aviation maintenance training or experience.*

(1) Pre-training assessment. For students that have prior aviation maintenance training or experience in a subject area, the school may conduct a pre-training assessment of the student's

initial competencies. The assessment must meet the requirements specified in paragraph (d)(1) of this section, as applicable to the subject areas and/or course content item(s) being assessed. The school must describe how it will assess the student's knowledge, skills and observable behaviors, including for each course content item:

- (i) The proportions of theory to be tested;
- (ii) A list of tests or assessments to be given; and
- (iii) A description of the practical projects to be completed.

(2) Individualized Training. The result of the pre-training assessment is the student's individual curriculum. The individual's curriculum must include the subject areas and course content items for which the student did not demonstrate competency. For each subject area and course content item, the certificated aviation maintenance technician school must satisfy paragraph (c)(2) of this section.

(3) Competency Assessments and Remedial Training. The school must conduct competency assessments that satisfy the requirements of paragraph (d) of this section. If the student fails to demonstrate competency in a course content item or subject area in accordance with paragraph (d)(4) of this section, the school must satisfy the remedial training requirements of paragraph (e) of this section.

(g) *Instructors.* (1) The competency-based training program must describe the following—

(i) How the school's method ensures that instructors used to deliver competency-based training curriculum material are trained on the school's competency-based training program requirements, including delivery methods and assessment techniques; and

(ii) How the school will evaluate the instructors' competencies to ensure they are qualified to provide competency-based training and assessments.

(2) The competency-based training program must meet the requirements of § 147.23 and describe the instructor to student ratios that will apply to group instruction in the laboratory or shop.

(h) *Data collection and analysis process.* The certificated aviation maintenance technician school must establish and maintain a data collection and analysis process on its students and instructors that will enable the school and the FAA to determine whether the competency-based training program is accomplishing its objectives. The school must maintain records of outputs of the data collection and analysis process. Such records must be retained for a minimum of 2 years.

(i) *Recordkeeping requirements.* In addition to meeting the record requirements specified in § 147.33, each certificated aviation maintenance technician school conducting an approved competency-based training curriculum must establish and maintain for each student enrolled records that show the student's progression through the student's individual curriculum, including documentation of any pre-training assessments and competency assessments.

(j) *Revisions.* Whenever the FAA finds that revisions are necessary for the continued adequacy of a competency-based training program that has been granted FAA approval, the certificate holder shall, after notification, make any changes in the program that are found necessary by the FAA.

5. Revise § 147.37 to read as follows:

§ 147.37 Quality of instruction.

On a quarterly basis, each certificated aviation maintenance technician school must have provided instruction of a sufficient quality that, in the prior 24 calendar months, at least 70 percent of its graduates passed on the first attempt within 60 days of graduation each written

knowledge test leading to a certificate or rating. As set forth in § 65.17 of this chapter, the minimum passing grade is 70 percent.

Issued under authority provided by 49 U.S.C. 106(f), 44701(a), 44703, and 44707 in Washington, DC, on March 22, 2019.

Robert C. Carty

Deputy Executive Director, Flight Standards Office
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