Aviation Technician Education Council

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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

Re: Aviation Maintenance Technician Schools Notice of Proposed Rulemaking
Docket ID: FAA-2015-3901; ID: FAA-2015-3901-0001; FR 2015-24841

To Whom It May Concern:

The Aviation Technician Education Council (ATEC) represents FAA certificated part 147 aviation maintenance technician schools (AMTS). As such, the proposed rule directly impacts ATEC members and their day-to-day operations. The council's section-by-section comments are enclosed.

A theme throughout the council's comments is the need for competency-based guidelines that allow institutions to cater programs to industry requirements. Many aspects of the proposal discourage dynamic curriculum development; in fact, it maintains many of the directives carried over from the current rule that fly in the face of a competency-based program (hour requirements, passing norms, restrictions on teaching above minimum levels, static curriculum topics, etc.).

Industry has suffered the repercussions of an outdated rule for far too long; AMTS students have been forced to spend wasted effort and time learning antiquated skills, and industry has borne the cost. We desperately need a competency-based rule that gives educators flexibility to teach the future workforce the skills needed to support the ever-changing, technology-driven, dynamic aviation industry.

The FAA sets forth knowledge, skill and experience standards through part 65 and associated testing requirements. Agency mandates on *how* an AMTS must meet those standards competes with Department of Education and accreditation requirements at a detriment to industry and the student. The council therefore requests that all specific "how-tos" be removed from the final rule so that FAA enforcement can focus on matters that directly impact safety.

On behalf of ATEC thank you for consideration of the enclosed comments,

Crystal Maguire
Business Manager

Enclosure Section by section analysis

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Section by Section Analysis

Sections of the proposal that ATEC has comment on is reproduced in italics, followed by the council's observations in bold. When alternative regulatory language is offered, it is represented in bold italics.

3. Revise § 147.3 to read as follows: § 147.3 Certificate and operations specifications requirements.
No person may operate as a certificated aviation maintenance technician school without, or in violation of, an aviation maintenance technician school certificate, rating, or operations specifications issued under this part.

A rating is part of the AMTS certificate; the council therefore recommends:

§ 147.3 Certificate and operations specifications requirements.
No person may operate as a certificated aviation maintenance technician school without, or in violation of, a certificate or operations specifications issued under this part.

4. Revise § 147.5 to read as follows: § 147.5 Application and issue.
(a) An application for a certificate and rating, or for an additional rating, must be made in a format acceptable to the FAA and must include the following:
(1) A description of the proposed curriculum;
(2) A list of the facilities, including their physical addresses, and the materials and equipment to be used;
(3) A list of the instructors to be used, including the kind of certificate and ratings held by each, and their certificate numbers; and
(4) The maximum number of students to be enrolled at any one time.
(b) An applicant who meets the requirements of this part is entitled to an aviation maintenance technician school certificate and associated ratings prescribing such operations specifications and limitations as are necessary in the interest of safety

The council suggests that the process for amending a certificate be separated from the process for initial certification so that all the original supporting documentation is not required for an amendment.

ATEC also suggests edits to paragraph (a)(2) requiring a "list of facilities" to better align with the operations specifications (OpSpecs) provided for in FAA Notice 8900.278.

Further, the requirement outlined in paragraph (4) is duplicative since the OpSpecs will provide for the maximum number of students (see 147.31(d)). Requiring a school to submit maximum student enrollment in its infancy could create barriers for schools who wish to expand programs to meet industry demand.

Finally, the council requests that the words "and rating" be removed wherever they appear since a certificate includes the rating.

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§ 147.5 Application for certificate.
(a) An applicant who meets the requirements of this part is entitled to an aviation maintenance technician school certificate.
(b) An application for a certificate must include the following:
(1) A description of the proposed curriculum;
(2) A description of the facilities, including the physical address of the certificate holder's primary location for operation of the school, and the materials and equipment to be used;
(3) A list of certificated instructors, including the kind of certificate, ratings held by each, and certificate numbers;
(c) An application for an additional rating or amended certificate must include only that information necessary to substantiate the change.

5. Amend § 147.7 by revising paragraph (a) to read as follows: § 147.7 Duration of certificate.
(a) An aviation maintenance technician school certificate or rating is effective from the date of issue until the certificate holder surrenders the certificate and the FAA accepts it for cancellation, or the FAA suspends or revokes it.
* * * * *

The agency's claim that it wants to prevent those under investigation from circumventing possible enforcement action is laudable, but it is unable to prevent that action in a fair and uniform manner. The increase in safety that may result from the proposed requirement is outweighed by the agency and industry burden the proposal would create. The vast majority of surrendered certificates are mere formalities. To require the exchange of formal documentation does not further safety interests or relate to the FAA's oversight of an air agency. Indeed, once an institution determines it no longer wants to operate and surrenders its certificate, it ceases to be an air agency and thus the FAA's authority to examine it is no longer relevant. Further, if the FAA's charge is safety in air commerce (as opposed to collecting a civil penalty) then certificate surrender would theoretically accomplish that goal. Penalties should be a distant consideration to safety.

Further, the preamble statement that the "new surrender requirements codifies existing FAA policy" does not justify a bad rule. Requiring each institution wishing to surrender its certificate to await affirmative acceptance is far more cumbersome than enabling investigative personnel to incorrectly and without authority refuse a voluntary surrender based on evidence that the surrender is being attempted to avoid certificate action. Further, the agency may pursue "collection" on a civil penalty, even if that entity is no longer certificated.

§ 147.7 Duration of certificate.
An aviation maintenance technician school certificate is effective from the date of issue until the certificate is surrendered, suspended or revoked.

6. Add § 147.9 to read as follows: § 147.9 Operations Specifications.
(a) Except for operations specifications paragraphs specifying ratings, operations specifications are not part of a certificate.

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(b) The operations specifications issued to an aviation maintenance technician school must be available at the school for inspection by the public and the FAA at the address required by paragraph (c)(1) of this section.
(c) Each certificate holder's operations specifications must contain—
(1) The physical address of the certificate holder's primary location for operation of the school. The address shall also serve as the address for mailed paper correspondence between the FAA and the certificate holder.
(2) The ratings held.
(3) The complete curriculum and the descriptions required under each of the subjects specified in the appendices.
(4) Any exemption granted by the FAA to the school.
(5) Lists of the facilities, equipment, and materials used by the school to meet the requirements of §§ 147.15 through 147.19.
(6) The maximum number of students to be enrolled at any one time.
(7) A current list of instructors and their qualifications.
(8) Any other information the Administrator determines is necessary.

This paragraph sets forth a concept relating to the privileges and limitations of an AMTS certificate. The council's proposed rewrite notes that the certificated entity must not operate in violation of its OpSpecs and eliminates redundant and unnecessary language.

The separation of the air agency certificate from the AMTS OpSpecs is problematic. The only reason OpSpecs are required is to clarify privileges or limitations; separating the OpSpecs from the certificate would essentially allow the agency to unilaterally change OpSpecs.

Prescribing specific OpSpecs sections in the rule limits flexibility provided for through the FAA's electronic WebOps program. The council's suggested revision would allow the agency to change specific information required as needs arise. Through its proposed language the FAA is merely necessitating an unnecessary burden on its own workforce and the industry.

Paragraph (b) is duplicative, § 147.39 sets forth the requirement for displaying the certificate. If the agency deems making OpSpecs available to the public necessary, it should be provided for in § 147.39.

§ 147.9 Operations specifications.
No person may operate as a certificated aviation maintenance technician school without, or in violation of, an aviation maintenance technician school certificate, ratings, or operations specifications issued under this part.

7. Add § 147.10 to read as follows: § 147.10 Amendment, suspension, and termination of operations specifications.
(a) The FAA may amend any operations specifications issued under this part if—
(1) The operations specification was issued erroneously;
(2) The FAA revises the operations specifications template;

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(3) The FAA determines that safety in air commerce and the public interest require the amendment; or
(4) The certificate holder applies for the amendment and the FAA determines that safety in air commerce and the public interest allows the amendment.
(b) Except for an amendment involving a rating, which would be considered a certificate action, the FAA may amend, suspend, or terminate any operations specification issued under this part if the certificate-holding district office determines that safety in air commerce and the public interest require the amendment, suspension, or termination.
(c) Except as provided in paragraph (f) of this section for an amendment, suspension, or termination of an operations specification in which the certificate-holding district office finds that an emergency exists requiring immediate action, when the FAA initiates an amendment, suspension, or termination of an operations specification, the following procedure applies:
(1) The certificate-holding district office notifies the certificate holder in writing of the proposed amendment, suspension, or termination.
(2) The certificate-holding district office sets a reasonable period (but not less than 7 days) within which the certificate holder may submit written information, views, and arguments on the proposed amendment, suspension, or termination.
(3) After considering the material presented, the certificate-holding district office notifies the certificate holder of—
(i) The adoption of the proposed amendment, suspension, or termination;
(ii) The partial adoption of the proposed amendment, suspension, or termination; or
(iii) The withdrawal of the proposed amendment, suspension, or termination.
(4) If the certificate-holding district office issues an amendment, suspension, or termination of an operations specification, it becomes effective not less than 30 days after the certificate holder receives notice of it unless—
(i) The certificate-holding district office finds under paragraph (f) of this section that there is an emergency requiring immediate action with respect to safety in air commerce; or,
(ii) The certificate holder petitions for reconsideration of the amendment, suspension, or termination under paragraph (e) of this section.
(d) If the certificate holder applies for an amendment to its operations specifications, the following procedure applies:
(1) The certificate holder must file an application to amend its operations specifications at least 30 days before the date proposed by the applicant for the amendment to become effective.
(2) The application must be submitted to the certificate-holding district office in a form and manner prescribed by the FAA.
(3) After considering the material presented, the certificate-holding district office notifies the certificate holder of—
(i) The adoption of the applied for amendment;
(ii) The partial adoption of the applied for amendment; or
(iii) The denial of the applied for amendment. The certificate holder may petition for reconsideration of a denial or partial adoption under paragraph (e) of this section.
(4) If the certificate-holding district office approves the amendment following coordination with the certificate holder regarding its implementation, the amendment is effective on the date the FAA approves it.
(e) When a certificate holder seeks reconsideration of a decision from the certificate-holding district office concerning the denial or partial adoption of the certificate holder's applied for

amendment, or of an FAA-initiated amendment, suspension, or termination of an operations specification, the following procedure applies:
(1) The certificate holder must petition for reconsideration of that decision within 30 days of the date that the certificate holder receives a notice of denial or partial adoption of the applied for amendment to its operations specifications, or of the date it receives notice of an FAA-initiated amendment, suspension, or termination of one or more of its operations specifications, whichever circumstance applies.
(2) The certificate holder must address its petition to the applicable Flight Standards Regional Division Manager.
(3) A petition for reconsideration, if filed within the 30-day period, suspends the effectiveness of any amendment, suspension, or termination issued by the certificate-holding district office unless the certificate-holding district office has found, under paragraph (f) of this section, that an emergency exists requiring immediate action with respect to safety in air transportation or air commerce.
(4) If a petition for reconsideration is not filed within 30 days, the effective date of the amendment, suspension, or termination shall be as specified under paragraphs (c) or (d) of this section.
(f) If the certificate-holding district office finds that an emergency exists requiring immediate action with respect to safety in air commerce or air transportation that makes the procedures set out in paragraphs (c) and (e) of this section impracticable or contrary to the public interest:
(1) The certificate-holding district office amends, suspends, or terminates the operations specification(s) and makes the amendment, suspension, or termination effective on the day the certificate holder receives notice of it.
(2) In the notice to the certificate holder, the certificate-holding district office specifies the reasons for its finding that an emergency exists requiring immediate action with respect to safety in air commerce and air transportation or that makes it impracticable or contrary to the public interest to stay the effectiveness of the amendment, suspension, or termination.

ATEC requests that this section be removed in its entirety.

We understand that the proposed language is in response to the Consistency in Regulatory Interpretation Rulemaking Advisory Committee's request that the agency review its processes for issuing operation specification paragraphs. During that group's deliberations, the FAA acknowledged that it does not have clear delineation between paragraphs that require action by a certificate holder and those created for agency convenience. Unless and until the agency resolves its issues relating to "regulating by OpSpecs" it must refrain from burdening another segment of the industry or itself by creating a bureaucratic process.

Eliminating the paragraph would also ensure AMTS are treated the same as other similarly-situated certificate holders, who do not have these prescriptive instructions provided for in regulation.

8. Revise § 147.13 to read as follows:
§ 147.13 Facilities, equipment, and material requirements.

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(a) Each certificated aviation maintenance technician school must provide and maintain at least the facilities, equipment, and materials specified in §§ 147.15 through 147.19 that are appropriate to the ratings held.
(b) A school may not make a significant change to its facilities, equipment, or materials used to comply with paragraph (a) of this section unless the change is approved in advance by the FAA. The approved changes must be listed in the certificate holder's operations specifications.

The word "significant" in § 147.13(b) will create confusion and inconsistent application of the rule. So long as the facilities, equipment and material are "appropriate to the ratings held", advance approval of changes will only create barriers for facility improvements. The council therefore recommends removal of paragraph (b).

The council also recommends language that would ensure AMTS can make educational programs more readily available through partnerships with secondary education. Several programs currently exist that help recruit future technicians before they graduate high school, the inclusion of proposed paragraph (c) would ensure all AMTS have the same, consistent opportunity to expand programs to local high school students.

§ 147.13 Facilities, equipment, and material requirements.
(a) Each certificated aviation maintenance technician school must provide and maintain the facilities, equipment, and materials specified in §§ 147.15 through 147.19 that are appropriate to the ratings held.
(b) [Suggested text from § 147.15, provided for below]
(c) A certificated aviation maintenance technician school may conduct operations outside of its primary location if it provides suitable facilities that meet the requirements of § 147.13(a).

9. Amend § 147.15 by revising the introductory paragraph and paragraph (f) to read as follows:
§ 147.15 Space requirements.
Each certificated aviation maintenance technician school must provide and maintain properly heated, lighted, and ventilated facilities for the rating or ratings held that the FAA determines are appropriate for the maximum number of students expected to be taught at any time for the following areas and classrooms:
* * * * *
(f) A suitable area and space with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect:
* * * * *

The section would create ambiguity and dependence on individual inspector interpretation. The council recommends language to ensure neutral and universally-accepted standards are considered.

Further, since space requirements simply describe the facilities required, the council suggests that proposed § 147.15 be incorporated as § 147.13(b).

§ 147.13 Facilities, equipment, and material requirements.

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(b) Each certificated aviation maintenance technician school must provide and maintain properly heated, lighted, and ventilated facilities, in accordance with applicable local, state, and national building codes, for the rating(s) held and as appropriate for the maximum number of students expected to be taught at any time for the following areas and classrooms:
**** * * * ****
(6) A suitable area and space with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect:
**** * * * ****

12. Revise § 147.21 to read as follows: § 147.21 General curriculum requirements.
(a) Each certificated aviation maintenance technician school must have and use an FAA-approved curriculum that meets the minimum requirements set forth in the school's operations specifications. The curriculum must be designed to qualify students to meet the minimum requirements of subpart D of 14 CFR part 65. With FAA approval, a school may teach approved curriculum subjects at levels exceeding those specified in the school's operations specifications.
(b) 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) as follows:
(1) For instructional hours, each instruction unit hour may not be less than 50 minutes—
(i) Airframe—1,250 hours (450 general plus 800 airframe).
(ii) Power plant—1,100 hours (450 general plus 650 power plant).
(iii) Combined airframe and power plant—1,900 hours (450 general plus 800 airframe and 650 powerplant).
(2) For credit hours, each credit unit hour must be based on higher education accreditation criteria—
(i) Airframe—28 credit hours (10 general credit hours plus 18 credit hours airframe).
(ii) Powerplant—25 credit hours (10 general credit hours plus 15 credit hours power plant)
(iii) Combined airframe and power plant—43 credit hours (10 credit hours general plus 18 credit hours airframe and 15 credit hours power plant).
(c) The curriculum must cover the subjects and items prescribed in appendices B, C, or D, and the items included under those subject headings in each school's operations specifications as applicable for the school's ratings. Each item must be taught to at least the indicated level of proficiency, defined in Appendix A and set forth in the corresponding operations specification item.
(d) Notwithstanding the provisions of paragraphs (a) through (c) of this section and § 147.11, the holder of a certificate issued under subpart B of this part may apply for and receive approval of special courses in the performance of special inspection and preventive maintenance programs for a primary category aircraft type certificated under § 21.24(b) of this chapter. The school may also issue certificates of competency to persons successfully completing such courses provided that all other requirements of this part are met and the certificate of competency specifies the aircraft make and model to which the certificate applies.

The council recommends that hour and credit requirements be moved to the OpSpecs so that industry has the flexibility to pursue competency-based programs.

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The antiquated hour/credit requirement puts too much emphasis on the time a student spends in a classroom seat at the expense of the skills he or she actually gains. Industry is in desperate need of a competency-based standard, free of specific hour/credit requirements, which will allow industry to transition away from seat time in favor of a structure that creates flexibility, and allows students to progress as they demonstrate mastery of subject matter, regardless of time, place, or pace of learning.

The council also suggests removing the statement from paragraph (a): "[w]ith FAA approval, a school may teach approved curriculum subjects at levels exceeding those specified in the school's OpSpecs". The regulation should not create impediments for schools to teach above the minimum.

The recommended language also takes into consideration the council's request that the appendices be removed in their entirety (see comment, below).

Finally, paragraph (d) should be contained in a new section since it is separate from the core curriculum functions.

§ 147.21 General curriculum requirements.
(a) Each certificated aviation maintenance technician school must have and use an FAA-approved curriculum that meets the minimum requirements set forth in the school's operations specifications. The curriculum must be designed to qualify students to meet the minimum requirements of subpart D of 14 CFR part 65.
(b) The curriculum must cover the subjects as provided for in each school's operations specifications. Each subject must be taught to at least the indicated level of proficiency as set forth in the operations specifications.

§ 147.XX Additional privileges.
The holder of a certificate issued under subpart B of this part may apply for and receive approval of special courses in the performance of special inspection and preventive maintenance programs for a primary category aircraft type certificated under § 21.24(b) of this chapter. The school may also issue certificates of competency to persons successfully completing such courses provided that all other requirements of this part are met and the certificate of competency specifies the aircraft make and model to which the certificate applies.

13. Revise § 147.23 to read as follows: § 147.23 Instructor requirements.
Each certificated aviation maintenance technician school must provide the number of instructors holding appropriate mechanic certificates and ratings that the FAA determines necessary to provide adequate instruction and supervision of the students, including at least one FAA-certificated instructor for each 25 students in each shop or class. However, a school may, with FAA approval, provide specially qualified instructors who are not FAA certificated mechanics to teach general, airframe, powerplant, or specialized subjects. This provision does not relieve the school from having one instructor who holds an FAA mechanic certificate with ratings for Airframe, Powerplant, or both, as appropriate for each 25 students. Each school must maintain

and keep current a list of the names and qualifications of all its instructors in its operations specifications.

The proposed addition of the word "or" between "shop" and "class" would add an enormous burden on AMTS without an increase in safety. The current rule requires a 1:25 ration for shop class; the revision would mandate the same ratio for both shop and class. One member illustrated the burden the addition of this two-letter word would create:

> **We operate classes of 54 to 60 students with one instructor. To accommodate the current student population, we would need an additional 18 classrooms to comply with the rule. Our current facility would not provide the necessary space which means we'd need to expand the current facility at great cost, or relocate.**

While the addition of the word "or" puts an increased burden on the AMTS without justification (e.g., an increase in safety), the prescriptive nature of the proposed section as a whole makes development of a competency-based program impossible.

AMTS have the expertise necessary to ensure its students are prepared for the mechanic's examination. Dictating the number and types of instructors required is overly prescriptive and removes the AMTS' ability to efficiently utilize otherwise qualified specialized and adjunct instructors that do not hold a current mechanics certificate.

Further, the requirement that the list of instructors (presumably contained in the OpSpecs though not specifically stated as much here) include all instructors and not just those that hold a mechanics certificate creates an undue burden on AMTS who regularly incorporate adjunct and "visiting" instructors into their curriculum when the opportunity presents itself. The requirement would effectively limit the AMTS' ability to take advantage of those opportunities because of the time it takes some local offices to process OpSpecs revisions. The requirement also lends itself to increased risk of noncompliance for schools that juggle hundreds of instructor changes each instruction period.

For these reasons the council recommends revising the language as noted below. At a minimum the agency must ensure this section is consistent with other instructor list requirements contained in proposed §§ 147.5 and 147.9.

§ 147.23 Instructor requirements.
Each certificated aviation maintenance technician school must ensure it provides the appropriate number of instructors necessary to ensure adequate instruction and supervision of the students. A list of instructors holding a mechanic certificate will be maintained in its operations specifications.

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14. Amend § 147.31 by revising paragraphs (c) through (e) and adding new paragraph (f) to read as follows: § 147.31 Attendance and enrollment, test, and credit for prior instruction or experience.
* * * * *
(c) A school may not graduate a student unless the student has completed all of the appropriate curriculum requirements. However, the school may credit a student with instruction or previous experience as follows:
(1) A school may credit a student with instruction satisfactorily completed at—
(i) An accredited university, college, community college, or junior college;
(ii) An accredited vocational, technical, trade, or high school;
(iii) A military technical school, or
(iv) A certificated aviation maintenance technician school.
(2) A school may determine the amount of credit to be allowed—
(i) By an entrance test equal to one given to the students who complete a comparable required curriculum subject at the crediting school;
(ii) By an evaluation of an authenticated transcript from the student's former school; or
(iii) In the case of a student from a non-accredited military technical school, credit allowed may be determined based only on the successful completion of an entrance test.
(3) A school may credit a student with previous aviation maintenance experience comparable to required curriculum subjects. It must determine the amount of credit to be allowed by documents verifying that experience, and by giving the student a test equal to the one given to students who complete the comparable required curriculum subject at the school.
(4) A school may credit a student seeking an additional rating with previous satisfactory completion of the general portion of another school's curriculum.
(d) A school may not have more students enrolled at any one time than the number of students specified on its FAA-issued operations specifications.
(e) A school must use an FAA-approved system for determining final course grades and for recording student attendance. The system must show hours of absence allowed, and show how the missed material and hours will be made available to the student.
(f) Whenever an aviation maintenance technician school demonstrates to the FAA that a student has made satisfactory progress at the school, the student may take the aviation mechanic written general knowledge test after completing the corresponding portion of the curriculum, even if the student has not met the experience requirements of § 65.77. The school must 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 must authenticate the certificate. The certificate must show the completion date and the approved curriculum title under which the student was enrolled.
(g) A certificated aviation maintenance technician school may use distance learning as an alternative instructional delivery method under certain circumstances approved by the FAA. Prior to implementation, the school must obtain initial and final FAA approval of the distance learning training program and must adopt policies and procedures for managing its distance learning program. The distance learning program must show that it will achieve a level of competency equal to, or greater than, that required by § 145.37.

The council recommends removing the requirement that its program make available missed materials “and hours” to the student (see paragraph (e)).

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Adding the language "and hours" to paragraph (e) would only add complexities to an already misinterpreted regulation (see ATEC letter to FAA dated July 10, 2015). The "missed material" requirement in the current regulation has consistently been interpreted to mean that *all* missed projects and assignments be "made up", and the manner in which that must be accomplished. Through its guidance material, the agency effectively attempts to mandate non-failure, an unattainable goal for educational institutions, and a misdirected concept since the student ultimately bears the responsibility for showing competency (i.e., part 147 regulates the AMTS, it does not impose requirements on the student).

In the end, mandating that content be made up (which may or may not further student knowledge) does not further the ultimate goal of competency, but instead adds significant costs due to increased instruction hours required, misdirecting time that could otherwise be spent providing direct educational benefits to students.

The requirement outlined in paragraph (e) that a school use an "FAA approved system" to determine final course grades would create unintended consequences since many schools must adhere to accreditation requirements that specify procedures for assigning grades. The council therefore recommends that the paragraph be revised to require a system, but allow the institution to determine the process used based on its quality systems and competing requirements.

Similarly, the requirement that the school "record student attendance" does nothing to ensure the student obtained the skill and knowledge required. The agency is again micromanaging the school instead of allowing it to focus its resources to ensure the student obtains the knowledge and skills needed.

The term "certificate" and "certificate of completion" has created confusion amongst certificate holders and regulators. The council therefore recommends that the agency use the more generic term "documentation" to ensure industry and enforcement officials are not overly focused on form over substance.

The current regulation does not prohibit distance learning; therefore paragraph (g) is duplicative and not needed. Distance learning should be incorporated into the educational system as a whole and not thought of as a separate "program" needing specific FAA "approval". That approval is already required through issuance of OpSpecs with AMTS curriculum. While the council would prefer the language be removed in its entirety, it has suggested alternative language that takes these factors into consideration.

Finally, the Department of Education (DOE) sets forth regulatory requirements for educational institutions. FAA mandates on *how* an AMTS must meet standards creates competing and conflicting authorities at a detriment to the student. The council therefore requests that specific "how tos" be removed from the proposal in their entirety so that FAA enforcement can focus on matters that directly impact safety.

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§ 147.31 Attendance and enrollment, test, and credit for prior instruction or experience.
**** * * * ****
(c) A school may credit a student with instruction or previous experience as follows:
(1) Instruction satisfactorily completed at—
(i) An accredited university, college, community college, or junior college;
(ii) An accredited vocational, technical, trade, or high school;
(iii) A military technical school, or
(iv) A certificated aviation maintenance technician school.
(2) A school may determine the amount of credit to be allowed—
(i) By an entrance test equal to one given to the students who complete a comparable required curriculum subject at the crediting school;
(ii) By an evaluation of an authenticated transcript from the student's former school; or
(iii) In the case of a student from a non-accredited military technical school, credit allowed may be determined based only on the successful completion of a competency test.
(3) A school may credit a student with previous aviation maintenance experience comparable to required curriculum subjects. It must determine the amount of credit to be allowed by documents verifying that experience, and by giving the student a test equal to the one given to students who complete the comparable required curriculum subject at the school.
(4) A school may credit a student seeking an additional rating with previous satisfactory completion of the general portion of another school's curriculum.
(d) A school must have procedures for determining final course grades.
(e) Whenever an aviation maintenance technician school demonstrates to the FAA that a student has made satisfactory progress at the school, the student may take the aviation mechanic written general knowledge test after completing the corresponding portion of the curriculum, even if the student has not met the experience requirements of § 65.77. The school must issue authenticated documentation to students indicating eligibility to take the written general knowledge test; the documentation must include the curriculum completion date and program completed.
(f) A school may use distance learning as an alternative instructional delivery method so long as it has procedures in place for managing the program.

15. Revise § 147.33 to read as follows: § 147.33 Records.
(a) Each certificated aviation maintenance technician school must keep current records for each student enrolled, showing—
(1) The student's attendance, tests, and grades received on the subjects required by this part;
(2) The instruction credited to the student under § 147.31(c), if any; and
(3) The authenticated transcript of the student's grades from that school.
(b) Each school must retain the records required by paragraph (a) for at least two years after the end of the student's enrollment, and must make each record available for inspection by the FAA during that period.
(c) Each school must keep a current progress chart or individual progress record for each of its students, showing the practical projects or laboratory work completed, or to be completed, by the student in each subject.

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If the intent of this rule change is to move to competency-based education, then it is imperative that the language throughout the regulation does not place antiquated regulatory burdens on the AMTS.

Processes for maintaining records such as attendance and test scores are often dictated by generally-accepted education practices, accreditation requirements and DOE regulation. Too often an FAA inspector's opinion of an institution's recordkeeping system is in conflict with competing interests. Given that AMTS recordkeeping does not have a direct impact on aviation safety, the council recommends that paragraph (c) be removed in its entirety and the remaining paragraphs be revised as follows:

§ 147.33 Records.
(a) Each certificated aviation maintenance technician school must keep records for each student enrolled, showing—
(1) The student's grades received on the subjects required by the operations specifications;
(2) The instruction credited to the student under § 147.31(c), if any; and
(3) The authenticated transcript of the student's grades from that school.
(b) Each school must retain the records required by paragraph (a) for at least two years after the end of the student's enrollment, and must make each record available for inspection by the FAA during that period.

16. Revise § 147.35 to read as follows: § 147.35 Transcripts and graduation certificates.
(a) Each certificated aviation maintenance technician school must, upon request by a student who has graduated from the school, or by a student who leaves the school before being graduated, provide a transcript of the student's grades to the student. An official of the school must authenticate the transcript. The transcript must state the curriculum in which the student was enrolled, whether the student satisfactorily completed that curriculum, and the final grades the student received.
(b) Each school must provide a graduation certificate or certificate of completion to every student it graduates. An official of the school must authenticate the certificate. The certificate must show the date of graduation and the approved curriculum.

Schools should not be required to issue transcripts to students that have not paid for the services rendered. The majority of schools have policies, in adherence to DOE regulation, to withhold transcripts and diplomas for students with outstanding balances due. The proposal puts too high a burden on institutions that count on tuition payments to ensure continued operations.

Further, as stated above, FAA regulation should not govern practices that have nothing to do with aviation safety (i.e., institution recordkeeping). Micromanaging these processes in conflict with DOE regulations and generally-accepted educational practices will only provide a disservice to our students.

§ 147.35 Transcripts and graduation certificates.

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(a) Official student transcripts evidencing grades received and programs completed must be authenticated by a school official and issued in accordance with school policy.
(b) Each school must provide authenticated documentation to each graduating student indicating the date of graduation and program completed.

17. Remove and reserve § 147.36.

18. Revise § 147.37 to read as follows: § 147.37 Quality of instruction.
(a) Each certificated aviation maintenance technician school must provide instruction of sufficient quality that its graduates achieve the pass rates described in this section. For the school's graduates who apply for a mechanic certificate or for an additional rating within 60 days after they are graduated, the percentage of those passing the applicable FAA written tests on their first attempt during any period of 24 calendar months must be at least the percentage figured as follows:
(1) For a school graduating fewer than 51 students during that period—the national passing norm minus the number 20.
(2) For a school graduating at least 51, but fewer than 201, students during that period—the national passing norm minus the number 15.
(3) For a school graduating more than 200 students during that period—the national passing norm minus the number 10.
(b) The failure of a school to maintain the quality of instruction specified in paragraph (a) of this section may be the basis for suspending or revoking that school's certificate.
(c) As used in this section, "national passing norm" is the number representing the percentage of all graduates (of a curriculum for a particular rating) of all certificated aviation maintenance technician schools who apply for a mechanic certificate or additional rating within 60 days after they are graduated and pass the applicable FAA written tests on their first attempt during the period of 24 calendar months described in this section.

The council recommends this section be removed in its entirety.

Paragraph (c) should be moved to the definitions section, which the council is recommending be relocated to guidance material or OpSpecs.

Non-compliance with the regulation will always provide the basis for an enforcement action, including suspension or revocation of an FAA certificate. Paragraph (b) is therefore duplicative and for simplicity, the council recommends that it be removed.

Finally, required passing norms are not needed in FAA regulation. Again the schools have specific accreditation and DOE requirements, not to mention "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. Removing paragraph (a) requirements would help focus FAA resources on other areas that have an actual risk to safety.

22. Revise § 147.43 to read as follows: § 147.43 FAA Inspection.

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A certificated aviation maintenance technician school must allow the FAA to inspect the school at any time to determine compliance with this part.

FAA access to school premises must be reasonable; the council therefore suggests the following language:

§ 147.43 FAA inspection.
A certificated aviation maintenance technician school must allow the FAA to inspect the school to determine compliance with this part.

24. Remove and reserve § 147.45.

25. Amend Appendix A by revising paragraph (c) to read as follows: Appendix A to Part 147—Curriculum Requirements
This Appendix Defines Terms Used in Appendices B, C, and D of This Part, and Describes the Levels of Proficiency at Which Items Under Each Subject in Each Curriculum Must Be Taught
* * * * *
(c) Teaching Materials and Equipment. The curriculum may be presented utilizing currently accepted educational materials and equipment, including but not limited to: calculators, computers, distance learning delivery equipment/methods and audio-visual equipment.
* * * * *

Given the complexities associated with revising regulation the council requests that Appendix A be removed in its entirety. At a minimum, the teaching levels must be removed to ensure they can be redefined as technology evolves. Indeed, most of these definitions are already contained in paragraph A002 of the AMTS OpSpecs template.

26. Revise Appendix B to read as follows:
A. Fundamental Electricity and Electronics
B. Aircraft Drawings
C. Weight and Balance
D. Fluid Lines and Fittings
E. Aircraft Material, Hardware, and Processes
F. Ground Operations and Servicing
G. Cleaning and Corrosion Control
H. Mathematics
I. Maintenance Forms, Records, and Publications
J. Physics for Aviation
K. Mechanic Privileges and Limitations
L. Inspection Concepts and Techniques
M. Human Factors
N. Foreign Object Elimination (FOE)
O. Alerts, Cautions, and Warning Indications

27. Revise Appendix C to read as follows:
A. Metallic Structures

B. Non-Metallic Structures
C. Flight Controls
D. Airframe Inspection
E. Landing Gear Systems
F. Hydraulic and Pneumatic Systems
G. Environmental Systems
H. Aircraft Instrument Systems
I. Communication and Navigation Systems
J. Aircraft Fuel Systems
K. Aircraft Electrical Systems
L. Ice and Rain Control Systems
M. Airframe Fire Protection Systems
N. Rotorcraft Fundamentals
O. Water and Waste Systems

28. Revise Appendix D to read as follows:
A. Reciprocating Engines
B. Turbine engines
C. Engine Inspection
D. Engine Fire Protection Systems
E. Engine Instrument Systems
F. Engine Electrical Systems
G. Lubrication Systems
H. Ignition and Starting Systems
I. Fuel Metering Systems
J. Reciprocating Engine Induction and Cooling Systems
K. Turbine Engine Air System
L. Engine Exhaust and Reverser Systems
M. Propellers

The association strongly recommends that the curriculum topics provided for in proposed appendices B, C and D be moved to the OpSpecs.

As provided for in the preamble, the reason for removing curriculum requirements from the current rule's appendices is so they can be "easily amended when necessary." While the council agrees that the subtopics should be contained in the OpSpecs, it believes the main topic headers should be contained there as well. Doing so would ensure the curriculum structure could be continually refined and improved, without the restriction static topics contained in regulation would impose. Some initial concerns the council has with the proposed topic headings in the rule include—

- **Usage of the word "fundamentals" would limit a school's ability to teach anything above the basics.**
- **Some topics are overly specific and should be contained as subtopics (e.g., rotorcraft fundamentals and water and waste systems).**

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- **Some topics require prohibitively expensive equipment when alternative teaching methods are available (e.g., water and waste systems).**
- **Some topics do not and/or will not always align with current technologies and terminology.**

ATEC recognizes that appropriate major topic headers are largely dependent on the subtopics, which will be provided for in the AMTS OpSpecs. It is therefore difficult to comment on the topics headers as provided for in the proposal without looking at the curriculum as a whole (topics and subtopics).

The council therefore recommends that appendices B, C and D be removed in their entirety to allow government and industry to consider the curriculum structure as a whole, via OpSpecs templates, without the need for formal rulemaking.