December 9, 2022

Brandon Roberts
Executive Director, Office of Rulemaking, ARM-1
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591

Re: Recommendation Report – Training Standardization Working Group (TSWG) – Master Schedule

Dear Mr. Roberts,

On behalf of the Aviation Rulemaking Advisory Committee (ARAC), I am pleased to submit the enclosed Recommendation Report from the Training Standardization working group (TSWG).

During the December 8, 2022, ARAC meeting at NASA's Ames Research Center in Mountain View, CA, Mr. Brian Koester, TSWG chair, presented an overview of the report which recommended an updated master schedule for aircraft-specific standardized curriculum development. The updated master schedule was developed through a methodical and comprehensive research and data analysis and reflects the prioritized list for which each aircraft curriculum will be developed.

ARAC members who attended the December 8 meeting, in-person and virtually, voted to accept the recommendation report. With that, I would welcome the agency's timely review and acceptance of the working group's recommendations.

Sincerely,

David Oord
ARAC Chair

Enclosure: Recommendation Report – Training Standardization Working Group (TSWG) – Master Schedule

FAA Aviation Rulemaking Advisory Committee (ARAC)

Training Standardization Working Group (TSWG) Recommendation Report

11-7-2022

Table of Contents

1. Executive Summary

1.1 Summary

The Aviation Rulemaking Advisory Committee (ARAC) created the Training Standardization Working Group (TSWG) in March 2020 to provide advice and recommendations to the ARAC on the most effective ways to standardize curricula provided by part 142 training centers offered to part 135 operators, known as the Standardized Curriculum Concept.

The Standardized Curriculum Concept supports the overarching goals to enhance training and checking and promote safer operational practices in part 135 operations through a common and consistent methodology for training and evaluating. This supports the National Transportation Safety Board Most Wanted List initiative to improve the safety of part 135 flight operations.

The TSWG is comprised of representatives from the aviation industry, including training centers, aircraft manufacturers, operators and industry organizations, serving as members of the group and report to ARAC. This recommendation report includes the results of the following TSWG's actions:

- Updated the master schedule to ensure the priority of aircraft or series of aircraft for standardized curriculum development reflects the current fleet and distribution of training events.

2. Background

2.1 The Task and Tasking

The FAA established the Air Carrier Training Aviation Rulemaking Committee (ACT ARC) in 2014 to provide a forum for the U.S. aviation community to discuss, prioritize, and provide recommendations to the FAA about operations conducted under parts 121, 135, and 142, addressing air carrier training.

The ACT ARC produced several part 135-specific recommendations it believed would achieve standardization (where appropriate) and significant administrative efficiency in check pilot qualification, flight instructor qualification, and part 135 air carrier training curricula delivered by part 142 training centers. The ACT ARC also recommended the FAA establish a Standardized Curriculum Concept for part 135 training provided by part 142 training centers.

On March 19, 2020, the FAA assigned this task to the Aviation Rulemaking Advisory Committee (ARAC), who established a new Training Standardization Working Group (TSWG) for this purpose. The TSWG tasking for standardization includes addressing inefficiencies that exist between part 135 and part 142, such as:

- Training, Testing, and Checking: Operators may not receive training that matches its operational environment; instructors and check pilots may focus on multiple operational methods, which decreases the quality of training, and checking.

- Lack of curriculum uniformity and improvements.

- Complicated Approval Process: Multiple Principal Operations Inspectors (POIs) are currently required to review technical elements of the same curriculum.

- Administrative Inefficiencies: Supplemental training for training center instructors and check pilots is required, with individual letters of approvals for each, which leaves an administrative gap with no easy means to verify qualifications. Additionally, part 135 operators must develop their own aircraft-specific fleet curriculum and must reproduce a physical copy of each as part of their training program records.

Standardized curricula will provide a common method for quality training accessible to any operator that obtains approval to use the curriculum in its FAA-approved training program. The Standardized Curriculum Concept aims to provide an efficient means to approve training curricula offered by part 142 training centers while increasing the consistency of training, testing, and checking delivered to part 135 operators. The use of standardized curricula is strictly voluntary and is one means to comply with the applicable regulatory requirements of parts 135 and 142. The standardized curriculum does not modify existing regulatory requirements for pilot training or qualification.

The Aircraft-Specific Part 135 Standardized Curriculum Model will enhance operator/training center safety programs and create a feedback loop that allows part 135 operators and part 142 training centers to partner in an effort to systematically use safety information to continually review and improve the standardized curriculum, as well as target areas of emphasis to enhance the quality of training provided. This "train as you fly, fly as you train" approach harmonizes with safety management principles, industry best practices, and risk mitigation, raising the level of safety competencies, threat awareness, and feedback for continual evaluation. This improvement feedback mechanism forms the basis for revising the standardized curriculum, training and checking. These three components then work together to allow the part 135 operator to spotlight the quality of the training program rather than the administration of the training program. Likewise, it also allows the part 142 training center to deliver a standardized and consistent training product that has the capability for continual improvement on a national level.

The TSWG will provide advice and recommendations to the ARAC on the most effective ways to standardize curricula provided by training centers. The group is formally tasked with the following:

1. Recommend a detailed master schedule for the development of part 135 standardized curricula for each aircraft or series of aircraft.
2. Develop and recommend a standardized curriculum to qualify training center instructors and evaluators (check pilots) to provide part 135 training, testing, and checking.
3. Develop and recommend part 135 standardized curricula for each aircraft or series of aircraft, which includes the maneuvers, procedures, and functions to be performed during training and checking.
4. Recommend continuous improvements to each part 135 standardized curriculum for a specific aircraft or series of aircraft.
5. Develop reports that contain recommendations for standardized curricula and results of the tasks listed. The group should review relevant materials to assist in achieving their objective, including FAA Advisory Circular 142-1, Standardized Curricula Delivered by Part 142 Training Centers.

Under the Standardized Curriculum Concept, the TSWG uses formalized stakeholder input to develop and recommend to the ARAC standardized curricula for each aircraft fleet. The ARAC uses the work of the TSWG to make recommendations to the FAA. The FAA reviews the recommendations and, if acceptable, makes draft standardized curricula available for public comment through published notices

in the Federal Register. The FAA may task the ARAC, through the TSWG, to use the public comments to refine its recommendations to ARAC. The FAA reviews the recommendations and, if acceptable, publishes the standardized curricula at a national level.

2.2 Working Group Solicitation and Selection

On April 28, 2020, FAA published the task notice and solicitation for members on the FAA ARAC web page. The solicitation was promoted by the interested industry associations, including the National Business Aviation Association (NBAA), National Air Transportation Association (NATA), and General Aviation Manufacturers Association (GAMA). The solicitation period closed on May 22, 2020.

FAA received nominations from 29 individuals. FAA reviewed the credentials of each respondent and recommends the Secretary appoint the selected 20 individuals to serve on ARAC's TSWG. Additionally, the FAA Office of Chief Counsel determined each nominee would qualify as a "representative" member.

FAA used the following key factors to select the nominees:

- Ensure an appropriate range of representation that would include small and large part 135 operators, training centers that provide part 135 training, aircraft manufacturers, industry associations, and individuals with proven experience in instructional design and curriculum development.
- Establish a group size of 15-20 members, a number that will accommodate desired representation while optimizing opportunities for full-committee cohesion and collaboration. Consistent with this factor, FAA selected only one candidate in cases where multiple candidates from the same company or association applied.
- Leverage nominees' previous or ongoing experience with other FAA committees and industry working groups.

2.3 Participants in the Training Standardization Working Group (TSWG)

Name	Organization
TSWG Members	
Brian Koester, Chair	National Business Aviation Association
Thomas Benvenuto	Solairus Aviation
Stephen Bragg	Executive Jet Management
Greg Brown	Helicopter Association International
Doug Carr	National Business Aviation Association
Fabiano Cypel	Embraer
Jon Dodd	Coalition of Airline Pilots Associations
Steve Hall	FlightSafety International
Aimee Hein	CAE, Inc.
Jens Hennig	General Aviation Manufacturers Association
Todd Lisak	Air Line Pilots Association
Steve Maloney	Sun Air Jets
Allan Mann	Wheels Up, LLC
John McGraw	National Air Transportation Association
Brian Neuhoff	Airbus Helicopters

Janine Schwahn	Summit Aviation, Inc.
Annmarie Stasi	Talon Air, LLC
Daniel Von Bargen	Jet Aviation Flight Services, Inc.
Mike Walton	Textron
FAA, Other Advisory, and Support Staff	
Josh Tarkington, Project Lead	Training and Simulation Group, AFS-280
Paul Preidecker, Facilitator	Training and Simulation Group, AFS-280
James Sapoznik	Training and Simulation Group, AFS-280
Shannon Salinsky	Policy Integration Branch, AFS-270
Kristin Tullius	Training and Simulation Group, AFS-280

2.4 Working Group Activity

The TSWG members agreed to form subgroup teams to research and analyze:

- Curriculum, which includes published guidance, regulations, reference materials, data sources, and airframes practical for standardization.
- Qualifications, to include instructors, pilots, and safety-implications.
- Continuous Improvement methods, which includes data-driven metrics and recommendations.

The TSWG must comply with the procedures adopted by the ARAC as follows:

1. Conduct a review and analysis of the assigned tasks and any other related materials or documents.
2. Draft and submit a work plan for completion of the task, which includes the rationale to support the plan, for consideration by ARAC.
3. Provide a status report at each ARAC meeting.
4. Draft and submit the recommendation report based on the review and analysis of the assigned tasks.
5. Present the recommendation report at the ARAC meeting.

As outlined in the FAA Tasking Notice, the TSWG will adhere to the following schedule.

June 2021 – Deadline to submit the initial recommendation report, which includes the proposed master schedule for standardized curriculum development to ARAC. The deadline to submit the interim report to the FAA is June 30, 2021.

The TSWG may submit ad hoc recommendation reports, which includes continuous improvements to the standardized curricula, via ARAC to the FAA for review and consideration at any time.

3. Historical Information

3.1 Overview

The concept of the standardized curriculum was recommended by industry through the Air Carrier Training Aviation Rulemaking Committee to remedy inefficiencies in the current dynamic between part 135 and part 142. The new standardized curriculum is expected to improve the efficiency of approval processes and increase the consistency of training, testing, and checking delivered to part 135 operators.

FAA Advisory Circular 142-1, Standardized Curricula Delivered by Part 142 Training Centers, provides the framework for implementation of the Standardized Curriculum Concept. Under the concept, the FAA accepts an aircraft-specific standardized curriculum at a national level. A part 142 training center may deliver the nationally accepted standardized curriculum to any part 135 operator that obtains approval to use it.

The part 135 operator's POI reviews the curriculum and grants approval for use of the aircraft-specific part 135 standardized curriculum, without changes, as part of the operator's training program. In discussions with the operator, the POI determines whether use of the aircraft-specific standardized curriculum (which comes with a cadre of qualified instructors and check pilots, along with use of the standardized curriculum) is appropriate for that operator based on the published guidance, rather than reviewing the specific content of individual modules in the aircraft-specific curriculum and the accompanying training center instructor/evaluator documentation. Introducing an aircraft-specific part 135 standardized curriculum for operators, coupled with guidance that enables part 142 training centers to develop a curriculum that would qualify part 142 training center instructors and evaluators to conduct training/checking under that aircraft-specific part 135 standardized curriculum, would address a number of inefficiencies in the current system.

3.2 Defining the Problem

Part 142 training centers generally have clients operating under a variety of 14 CFR parts and develop a core curriculum to meet the needs of their stakeholders. Currently, these core curriculums cannot be used by part 135 operators. Instead, each part 135 operator must have its own training program approved by the operator's POI. The training program can be based on the part 142 training center's core curriculum; however, the operator or POI may require changes so that the resulting curriculum meets all part 135 regulatory requirements. Because some of these curricula were not originally designed for part 135 operators, many adjustments and improvements may be necessary, which results in a lack of curriculum uniformity.

These changes, combined with the time it takes for each POI to conduct an in-depth review of each operator's curriculum, creates strain on the POI, the operator, and the training center. The operator is required to obtain POI approval of the "contract check pilot" to conduct checks under the operator's training curriculum, generally through the center's Training Center Evaluators (TCE). It is important to note that the TCE/contract check pilot is already approved by the TCPM to conduct certification under the core curriculum.

The framework for the aircraft-specific part 135 standardized curriculum model, which also addresses the inefficiencies involved with each operator having approved instructors/contract check pilots, should include a manner by which training center instructors/evaluators can be qualified as instructors/check pilots under part 135. Specific guidance can be developed that would assist training centers to develop a standard non-aircraft-specific training curriculum that satisfies the requirements of § 135.329, 135.345, 135.293, and 135.297 in a manner consistent with the size, scope, and complexity of the operator (in this case, a part 142 training center) and can be approved under part 142. The training center would use this special curriculum to train and qualify its instructors/evaluators to conduct training, testing, and checking under standardized curriculums for part 135 operators.

3.3 Resolution and Benefits

The standardized curriculum may be valuable to the industry due to the expectation it will enable safety and administrative benefits. Within the industry, this curriculum will be especially advantageous to part 142 training centers, part 135 operators that use a part 142 training center, training personnel who develop and deliver training under parts 135 and 142, as well as individual contract pilots.

Enhanced Training, Testing, and Checking.
The use of a common set of Standard Operating Procedures (SOPs) eliminates the situation in which part 142 training center personnel deliver training and checking to numerous part 135 operators with widely varying objectives, standards, and procedures. This approach allows instructors and check pilots to focus on one operational method, which increases their ability to evaluate comprehensively the pilots they are checking.

Leveraging Expertise.
An industry-led group composed of SMEs that represent manufacturers, part 135 operators, part 142 training centers, and industry trade organizations develops the standardized curriculum. Any stakeholder can recommend improvement at any time. This means that as risks are identified (i.e. NTSB safety recs), the curriculum can be updated at a global level, with those improvements drilled down to all the operators using the curriculum.

Streamlined Approval Process.
The FAA accepts and publishes the standardized curriculum at a national level. This eliminates the need for multiple POIs to review technical elements of the same curriculum. Instead, POIs evaluate if the curriculum (and associated standards and procedures) fit the needs of the part 135 operator.

Administrative Efficiency.
A part 142 training center qualifies its personnel as instructors and check pilots for the part 135 standardized curriculum. This eliminates the need for individually issued check pilot letters of approval for each part 135 operator. Also, a part 135 standardized curriculum listed in a training center's Training Specifications (TSpecs) may be referenced in the part 135 operator's training program as an FAA-published curriculum in accordance with § 135.341, without the need to reproduce a physical copy of the curriculum.

3.4 The Scope of a Standardized Curriculum

An aircraft-specific standardized curriculum is only a segment of the training required to serve as a pilot in part 135 operations. It will not provide part 135 operators with a complete training program, and is only a segment of training in accordance with § 135.324(b). See Figure 2-1 Standardized Curriculum Elements below:

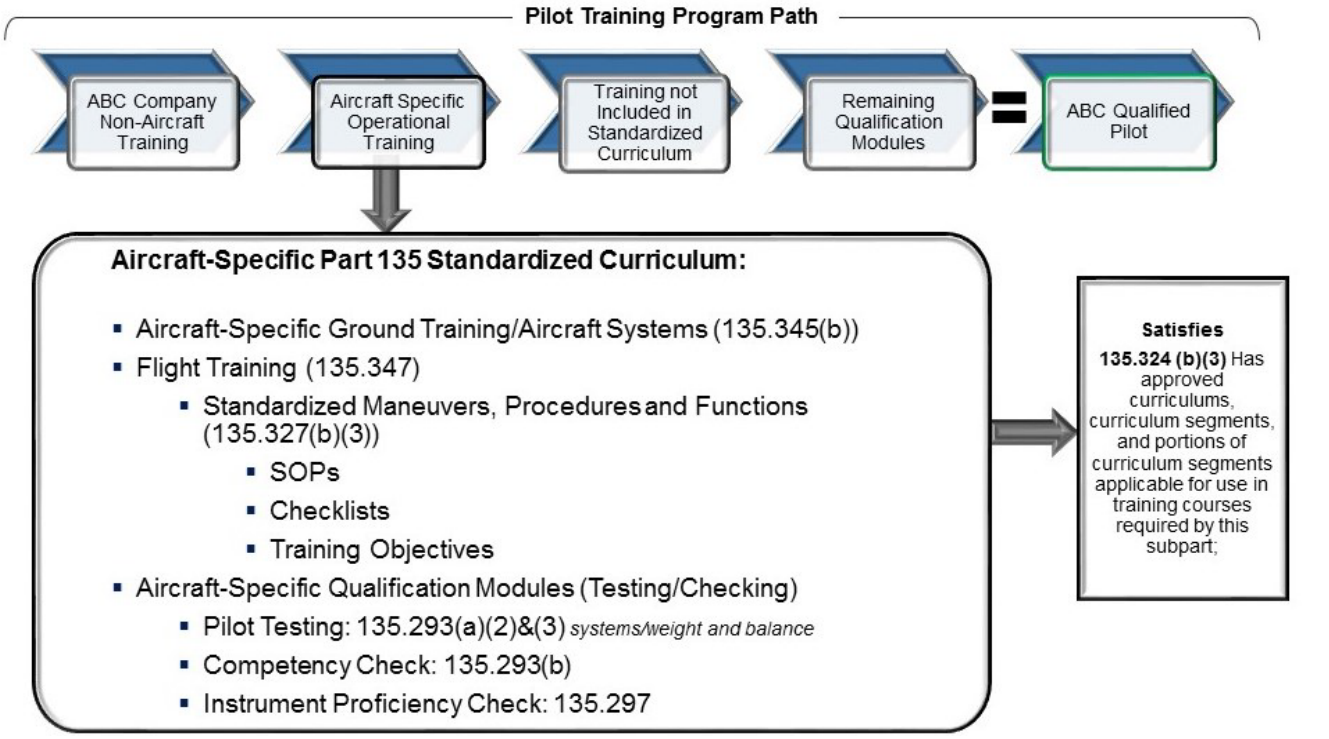

Figure 2-1 Standardized Curriculum Elements

As required for any training conducted in accordance with § 135.324(b), the part 142 training center must qualify its personnel to provide part 135 training, testing, and checking as outlined in AC 142-1 in order to deliver the standardized curriculum. The image above, Figure 2-1, Standardized Curriculum Training Elements, illustrates "the box" in which training, testing, and checking is included in the standardized curriculum, and where the standardized curriculum resides in the path to part 135 pilot qualification. The expanded area, "Aircraft-Specific Operational Training portion of the Pilot Training Program Path", defines the elements within the box of the standardized curriculum, and represents what the ACT ARC recommended.

The Standardized Curriculum Package (SCP) is a package comprised of the training curricula and the supporting courseware, equipment, functionality, personnel, and facilities necessary to deliver a curriculum or group of curricula for part 135 training. The part 142 training center qualifies its personnel to deliver the part 135 training.

A part 142 training center may deliver the nationally accepted standardized curriculum to any part 135 operator that obtains approval for its use. It is one, voluntary way to comply with existing regulations as well as the approval process in a pilot's training program path.

4. Task Group Assignments and Activities

4.1 Defining the Subgroups and Tasking

The TSWG reviewed the assigned tasking from the original ARAC tasking statement, and created these overarching categories to develop a standardized curriculum:

- Curriculum, which includes published guidance, reference materials, data sources, and airframes.

- Qualifications, to include instructors, pilots, and safety-implications.
- Continuous Improvement, which includes data-driven metrics and recommendations related to the cross-type standardized curriculum that will be developed.

Each category was discussed in detail and aligned with task assignments that were directly supportive of the TSWG's objectives and assigned a number:

TWSG Task Detail Table	
1	Develop TSWG meeting schedule.
2	Identify activities that require SME action-teams/sub-groups.
3	Conduct a targeted review of published FAA guidance, data sources, and other reference materials relevant to the design, development and proposals to support the standardized curricula. Examples for review: ARAC Tasking Notice; FAA Advisory Circular 142-1; FAA Order 8900.1 Inspector Guidance (TCPM and POI); Standardized Curricula Delivered by Part 142 Training Centers; Flight Standardization Board Report (FSBR); relevant supporting data sources; etc.
4	Identify systematic development methodology (i.e., Instructional Systems Design (ISD), etc.).
5	Identify list of aircraft types and variants practical for standardized curriculum development.
6	Prioritize standardized curriculum development based on aircraft types.
7	Identify the 'flagship' (first) aircraft type standardized curriculum.
8	Conduct focused review and analysis of existing qualification training curricula for applicable aircraft types under part 135 operations.
9	Develop Instructor and Check Pilot Qualification Curriculum.
10	Identify sub-curricula for each standardized curricula aircraft type (e.g., CQ, Re-Qual; as needed for future development).
11	Identify supporting data and resources.
12	Conduct a regulatory GAP analysis to include parts 135 and 142, along with the proposed standardized curriculum.
13	Identify methodology for ongoing standardized curriculum maintenance and development (who, how, when/triggers for revisions).
14	Determine data-driven methods and element criteria to identify program effectiveness to make recommendations for continuous improvement.
15	Determine the maximum extent to which standardized curriculum programs can be standardized across aircraft types, based on regulatory analysis, safety implications, and manufacturer (OEM) input.

The working group determined these tasks would be achievable through the formation of specialized breakout groups (Action Teams). Each of these new Action Teams would be responsible for research, analysis, and assigned tasking for their team's respective subject categories. The Master Schedule Action Team addressed tasks 5 and 6.

4.2 Subgroup Action Teams

4.2.3 Review and Analysis Results of the Master Schedule Action Team

The Master Schedule Action Team was formed in 2021 to identify and prioritize a list of aircraft types and variants for part 135 standardized curriculum development and recommend the flagship (first) aircraft. The June 2021 TSWG recommendation report to ARAC included the results of their work.

The action team agreed that the total volume of part 135 events recorded by the sample of part 142 training providers was the best indicator of the part 135 events per aircraft designation and, thus, the most accurate information on overall volume. In addition, the TSWG agreed that the master schedule list should not include data from 2020 due to the destabilizing global events associated with the COVID-19 Public Health Emergency and used data up to 2019 for this purpose. From the number of part 135 training events recorded in 2019, the action team ranked aircraft types by the number of training events, with those types having the highest percentage of training events receiving the highest ranking.

The working group recognized that this list was subject to change as the industry quickly evolves, along with operator fleet aircraft and training requirements. Therefore, the TSWG recommended the ARAC update this list each year, starting with the end of year 2021 data, to ensure the capture of changes in training volume per type on an annual basis and to spot new programs training under part 135 at part 142 training providers as they occur.

Because the TSWG was still developing the curriculum for the flagship aircraft, the G-V, at the end of 2021, the TSWG did not update the master schedule at that time. Instead, the TSWG recommended the G-V curriculum to ARAC in September 2022 and subsequently reconvened the Master Schedule Action Team to update the schedule. The updated schedule ranks aircraft from the highest density training events down to the lowest based on training data from September 1, 2021 to August 31, 2022.

Four training providers provided information to populate that table:

CAE, Inc.	TRU
FlightSafety International	SimCom

For consistency and clarity, an *event* is defined as a part 135 operator training schedule reservation with a part 142 training center that results in training/checking activity. A *session* is defined as singular training, testing, or checking that is part – or all of – an event and occurs based on a defined module within the curriculum.

In accordance with the June 2021 recommendation, the TSWG will continue to update the master schedule on an annual basis to ensure current and future programs trained under part 135 at a part 142 training provider will be considered for a standardized curriculum.

5. Implementation Options

The TSWG is recommending an updated master schedule. In the 2021 initial master schedule recommendation, the TSWG recommended addressing the G-V first, followed by the HS-125 and CE-560. Because the TSWG has submitted an initial recommendation for the G-V and started work to address the HS-125 and CE-560XL, that work should be well-spent. The TSWG should continue the effort to develop curricula for those aircraft types for which it has already started work. Efforts to develop a curriculum for additional aircraft should commence with the highest-ranked aircraft on the most recent schedule for which work has yet to begin.

6. Recommendations

6.1 Recommendation 1: The Master Schedule

> *The Training Standardization Working Group recommends the updated master schedule for aircraft-specific standardized curriculum development as submitted, determined through research and data analysis, and the priority in which each aircraft or series of aircraft curriculum will be developed.*

In June 2021, the TSWG recommended a master schedule for aircraft-specific standardized curriculum development. The working group developed the prioritized schedule by reviewing training data from as many part 142 training providers as possible. The group chose this methodology because the part 142 training centers are training experts with data that would be timely, relevant, and in sufficient quantity to provide a valid sampling of which operators use training centers to train and preferred aircraft training platforms. The subgroup provided data to the group with the aircraft determined to be applicable and ranked from the highest number of 135 pilot training events down to the lowest. This approach was used to ensure the curricula are developed in the order with the most significant impact on the part 135 industry.

From the number of part 135 training events recorded in 2019, the action team ranked aircraft types by the number of training events, with those types having the highest percentage of training events receiving the highest ranking. Because the aircraft that make up the part 135 industry's fleet change over time, the TSWG recommended updating the schedule annually. The updated schedule in the appendix ranks aircraft from the highest density training events down to the lowest based on training data from September 1, 2021 to August 31, 2022.

Appendix

Master Schedule

Type Certificate Holder	Civil Model Designation	Current Type Rating Designation	% Volume of Training	Final Rank
Gulfstream Aerospace Corporation	GIV-X, GIV-X (G350), GIV-X (G450), GV, GV-SP, GV-SP (G500), GV-SP (550)	G-V	7.74	1
Bombardier Inc.	BD-100-1A10 (Challenger 300)	CL-30	6.95	2
Textron Aviation Inc.	300, 300LW, B300, B300C, (BE-300F)	BE-300	5.57	3
Textron Aviation Inc.	560XL, 560XLS, 560XLS+	CE-560XL	5.18	4
Gulfstream Aerospace Corporation	G-IV, G-IV (G300), G-IV (G400)	G-IV	4.85	5
Textron Aviation Inc.	750	CE-750	4.06	6
Bombardier Inc.	BD-700-1A10 BD-700-1A11	BBD-700	3.85	7
Textron Aviation Inc.	DH.125 Series BH.125 Series HS.125 Series BAe.125 Series 800 Hawker 750, Hawker 800 Hawker 800XP Hawker 850XP Hawker 900XP	HS-125	3.77	8
Embraer S.A.	EMB-505 (Single Pilot) EMB-505 (SIC Required; SIC limitation is required)	EMB-505	3.72	9
Textron Aviation Inc.	500, 501, 550, S550, 551, 552, 560	CE-500	3.44	10
Yaborã Indústria Aeronáutica S.A.	EMB-135ER, EMB-135LR, EMB-135KE, EMB-135KL, EMB-135BJ, EMB-145, EMB-145ER, EMB-145MR, EMB-145LR, EMB-145XR, EMB-145MP, EMB-145EP	EMB-145	3.24	11
Textron Aviation Inc.	MU-300, MU-300-10, 400, 400A, 400T	MU-300, BE-400	3.20	12
Textron Aviation Inc.	525, 525A, 525B, 525C (SIC Required) 525, 525A, 525B, 525C (Single Pilot)	CE-525 & CE-525S	3.18	13
Learjet Inc.	45	LR-45	2.99	14

Type Certificate Holder	Civil Model Designation	Current Type Rating Designation	% Volume of Training	Final Rank
Learjet Inc.	60	LR-60	2.71	15
Dassault Aviation	Mystère Falcon 50 Mystère Falcon 900 Falcon 900EX	DA-50	2.44	16
Bombardier Inc.	CL-600-2B16 (CL-604 variant)	CL-604	2.16	17
Pilatus Aircraft Ltd.	PC-12-47/E	PC-12-47/E	2.04	18
Textron Aviation Inc.	90, 200, 250, (non-typed) & 200T, 200CT, A200CT, B200C, B200T, B200CT, B200 Model 200 series with Commuter Category STC applied (typed)	BE-200	1.94	19
Embraer S.A.	EMB-545, EMB-550	EMB-550	1.84	20
Textron Aviation Inc.	650	CE-650	1.75	21
Textron Aviation	Cessna 208 Caravan CE-208		1.67	22
Textron Aviation Inc.	680, 680A	CE-680	1.62	23
Learjet Inc.	23, 24, 24A, 24B, 24D, 24E, 24F, 25, 25B, 25C, 25D, 25F, 28, 29, 31, 31A, 35, 35A, 36, 36A 55, 55B, 55C	LR-JET	1.57	24
Dassault Aviation	Falcon 2000 Falcon 2000EX	DA-2000	1.34	25
Gulfstream Aerospace Corporation	GVI (G650)	GVI	1.34	26
Gulfstream Aerospace LP	Galaxy, Gulfstream 200	G-200	1.29	27
Bombardier Inc.	CL-600-1A11 CL-600-2A12 CL-600-2B16 (CL-601-3A and CL-601-3R variants)	CL-600	1.23	28
Embraer S.A.	EMB-500 (Single Pilot) EMB-500 (SIC Required; SIC limitation is required)	EMB-500	0.94	29
Dassault Aviation	Falcon 7X	DA-7X	0.90	30
Sikorsky Aircraft, A Lockheed Martin Company**Error! Bookmark not defined.**	SK-76	SK-76	0.90	31
Dassault Aviation	DA-900DX, DA-900LX DA-900EX EASy	DA-EASY	0.88	32

Type Certificate Holder	Civil Model Designation	Current Type Rating Designation	% Volume of Training	Final Rank
Gulfstream Aerospace LP	Gulfstream G280	G-280	0.84	33
Learjet Inc.	75	LR-75	0.79	34
Bell	Bell-407	Bell-407	0.78	35
Gulfstream Aerospace Corporation	GVII-G500 GVII-G600	GVII	0.77	36
Airbus Helicopters (Eurocopter)[i]	EC135	EC135	0.73	37
Honda Aircraft Company LLC	HA-420	HA-420	0.68	38
Dassault Aviation	DA-2000DX, DA-2000LX DA-2000EX EASy	DA-2EASY	0.65	39
Pilatus Aircraft Ltd.	PC-24	PC-24	0.49	40
Bombardier Inc.	BD-700-2A12	G7500	0.45	41
Textron Aviation Inc.	Bae.125 Series 1000 Hawker 1000	BAE-125	0.44	42
MHI RJ Aviation ULC	CL-600-2B19 CL-600-2C10 CL-600-2C11 CL-600-2D24 CL-600-2D15	CL-65	0.35	43
Textron Aviation Inc.	390 (SIC Required) & 390 (Single Pilot)	RA-390 & RA-390S	0.33	44
Textron Aviation Inc.	4000	RA-4000	0.31	45
Gulfstream Aerospace LP	Gulfstream G150	G150	0.30	46
Saab AB, Support and Services	340A (SAAB/SF340A) SAAB 340B	SF-340	0.27	47
Leonardo S.p.A.**Error! Bookmark not defined.**	AB139, AW139	AB-139, AW-139	0.25	48
Gulfstream Aerospace Corporation	G-1159, G-1159A, G-1159B,	G-1159	0.23	49
Yaborã Indústria Aeronáutica S.A.	EMB-120, EMB-120RT, EMB-120ER, EMB-120FC, EMB-120QC	EMB-120	0.17	50
Textron Aviation Inc.	510 (SIC Required) 510 (Single Pilot)	CE-510 & CE-510S	0.17	51
Textron Aviation Inc.	700	CE-700	0.16	52
Sikorsky Aircraft, A Lockheed Martin Company**Error! Bookmark not defined.**	S-92A	SK-92	0.12	53

Type Certificate Holder	Civil Model Designation	Current Type Rating Designation	% Volume of Training	Final Rank
M7 Aerospace LLC (*) when operating in the restricted category and complying with applicable Notes from TCDS A5SW (**) Type rating not required when operating in compliance with Notes 11 and 14 from TCDS A5SW.	SA226-AT (*) SA226-T(B) (*) SA226-TC, SA227-AC, SA227-BC, SA227-AT SA227-CC, SA227-DC, SA227-PC SA227-TT (**)	SA-227	0.09	54
Piaggio Aircraft Ltd.	P-180	P-180	0.09	55
Bombardier Inc.	DHC-8-100 Series DHC-8-200 Series DHC-8-300 Series DHC-8-400 Series	DHC-8	0.08	56
Airbus Helicopters (Eurocopter)**Error! Bookmark not defined.**	EC145	EC145	0.07	57
Textron Aviation Inc.	1900, 1900C, 1900D	BE-1900	0.04	58
Bell[Error! Bookmark not defined.]	Bell-412	Bell-412	0.04	59
Bell[Error! Bookmark not defined.]	Bell-430	Bell-430	0.02	60
Saab AB, Support and Services	Model SAAB 2000	SA-2000	0.01	61

[i] *Note: The standardized curriculum for helicopters to be developed at a later phase and date.*