Professional Pilot 2015-2016 Outcomes
Department: BS Aerospace - Professional Pilot Concentration

Outcomes

1. Students will obtain the Commercial MEL/SEL with instrument rating certificates.
   Start: 7/1/2015
   End: 6/30/2016
   Providing Department: BS Aerospace - Professional Pilot Concentration
   Person(s) Responsible: Paul A. Craig - Professional Pilot Faculty Lead
   Outcome Type: Program Outcome

Measure 1
In the 2015-2016 AY:
39 Professional Pilot students completed the Instrument Airplane Rating. 34 students of the
39 passed their practical test on the first attempt (87.2%)
39 Professional Pilot students completed the Commercial Pilot Certificate. 36 students of the
39 passed their practical test on the first attempt (92.3%)

What changes have you made based on prior results of measure 1
The availability of Designated Pilot Examiners has been a constant challenge and a threat to
the smooth flow of training and student completions. The selection of DPEs rests solely with
the local FAA office and as such this has always been a weak link in our supply chain as MTSU
has no control over this vital link. But the flight school administration has taken proactive
initiatives with the FAA, including using DPEs out of region, to reduce the problem. These
initiatives will continue into the future.

Analysis of Results for Measure 1
The ability of the flight department to provide flight instructors, airworthy airplanes, flight
training devices, scheduling logistics, stage checks and practical test management continued to
be a strength of the program - resulting in this numbers of completions. The Instrument
Rating and Commercial Pilot Certificates are accomplished within an FAA approved Part 141
program which is also recognized for Restricted-ATP privileges. The high number of
Commercial Pilot Certificates (and Flight Instructor Certificates) were, in large part, made
possible by the purchase of an additional Piper Arrow airplane. The Arrow is considered by the
FAA as a "complex" airplane and a complex airplane is required for the Commercial (and CFI)
Practical Tests. The need for every student in the program to earn the complex endorsement
and pass the Commercial Practical Test has always been a bottleneck so the purchase of this
airplane was a direct response to that problematic issue.

Future actions based on results from measure 1
No additional courses will be added, but there will be an increased use of the Cross Country
Flight Lab. This lab once accomodated the cross country requirement for the Instrument
Rating, but as regulations changed the cross country course no longer was required by
remained on the books. Today the Cross Country Flight Lab has been a great benefit for
Veteran Students using GI Bill funding.
The Department aims to fill a new position of Airport Operations Manager during the 2016-2017
AY. This new position will free up the Chief Flight Instructor and Assistant Chief
Instructor to maintain a high level of supervision of the entire instruction and safety effort.
In 2015-2016 the Professional Pilot program altered one of its performance measures. The program no longer tracks the number of students who do not complete their required flight training during their initial semester of enrollment and consequently received the grade of Incomplete. It was decided that completions rather than completions by semester was a better determinate of performance, as Incomplete grades are impacted by several factors beyond our control (weather, DPE availability, etc.) We will monitor the new system if measurement this year (2016-2017) to determine if the new system is a better reflection of overall performance.

The number of training aircraft down for maintenance at any given time continues to be a challenge for flight operations. Routine maintenance typically is handled in a timely way and these airplanes are predictably and quickly returned to service. But when problematic (non-routine) issues arise with an airplane a "hard down" situation is created. There were times this year when our fleet of 19 DA40s was actually reduced to 16. We need to address the resource, workflow and division-of-labor issues surrounding hard down airplanes in the coming year.

2. Students should exhibit the ability to act as a first officer under CFR Part 121 in a crewed, turbine-powered aircraft.

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Measure 1
Measure 1 is the completion rate of students in AERO 3240 and 4250.
Explanation: Aero 3240 is the prerequisite course for Aero 4250. Aero 3240 is an introduction to advanced turboprop aircraft utilizing a Frasca Beech 1900 FTD. FTD flight training consists of six hours of crew operational flying, including a Line Oriented Flight Training session. The sequence of Aero 3240 to Aero 4250 is intended to be a two-step program from light twin-engine, single pilot operations introducing the students sequentially to more advanced systems and operating environments with crew coordination and airline operations procedures.
Aero 4250 is the capstone flight training course utilizing a Frasca CRJ 200 FTD. The course provides training in advanced, high altitude, turbine powered (turbo fan) aircraft operations emphasizing crew coordination procedures in a Part 121 air carrier environment. Classroom training is completed in stage 1 and stage 2 is the FTD training. The course final is a Line Oriented Flight Training exercise including the requirements for a high altitude endorsement. This is a Part 141 course.

What changes have you made based on prior results of measure 1
During the 2015-2016 AY a new Flight Simulator Building was completed and occupied at the MTSU Airport Campus. This was an important step, as the lack of high quality facility to house the program's flight training devices (FTD) was cited as a weakness in the 2012 AABI Visiting Team Report and as a result of that report this building was funded and completed. That is the good news. The challenging part of the process is that FTDs had to be disassembled, transported to the new building and reassembled. This required the CRJ 200 FTD to be re-
certified by the FAA for continued use in AERO 4250, which is an FAA approved Part 141 course. This created a temporary interruption in our ability to log FTD time and keep students on pace for completion - but the team of faculty and staff were able to complete the job while maintaining scheduled and a 100% completion rate.

Analysis of Results for Measure 1

Pro Pilot IV Aero 3240

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Pro Pilot V Aero 4250

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<td>Fall 2015</td>
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<tr>
<td>Spring 2016</td>
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The performance of the Professional Pilot students remains strong. AERO 4250 had an especially high level of performance during the 2015-2016 AY. AERO 4250 is an FAA Part 141 approved course that is subject to routine FAA inspections and record keeping.

Future actions based on results from measure 1

No additional courses to be added - this measurement is already a measure of performance in two AERO courses.

Re-certification of the CRJ 200 FTD following relocation has been accomplished and the courses that are the basis of this measurement are now housed in a new building with advanced classrooms and simulator bays.

We are always in need or qualified personnel in the form of faculty, adjunct and even part-time employees to conduct the flight simulation sessions. These sessions are time consuming and labor intensive. Support personnel will always be a resource need for this measurement.