## 1. Assessment Plan - Four Column



## PIE - Technology & Health: Aircraft Maintenance Unit

## **Narrative Reporting Year**

### 2017-18

Contact Person: David Yost

Email/Extension: dyost@mtsac.edu X4773

**Program Planning Dialog:** No changes made during the 2017-2018 year.

**External Conditions, Trends, or Impacts:** 1. Industry indicates very high employment rates but local programs indicate few graduates are completing their certification exams.

2. Changes in technology; industry is utilizing more digital electronic systems in new aircraft designs.

**Internal Conditions, Trends, or Impacts:** 1. Facilities: Relocation of Airframe and Powerplant lecture classrooms to more centralized location with updated AV resources. This issue resolved in summer of 2017.

Critical Decisions Made by Unit: None for 2017-2018

**Notable Achievements for Theme A: To Advance Academic Excellence and Student Achievement:** Program has maintained an FAA written exam pass rate that is higher than the region and national average.

Notable Achievements for Theme B: To Support Student Access and Success: 1. Acquired an additional student award to help students with certification exams expenses.

- 2. Added a prerequisite to AIRM 70B to ensure students entering that course are qualified to enter.
- 3. Department hosted a resume workshop, interview workshop, and career day which brought five employer to campus to recruit AIRM students.

**Notable Achievements for Theme C: Secure Human, Technological, & Financial Resources:** 1. Program acquired a turbine helicopter, a twin-pac PT6 engine and Aces II dynamic balancing equipment. Purchase transaction is on hold due to discrepancies with equipment delivered. Anticipated due date is September 2018.

**Notable Achievements for Theme D: To Foster an Atmosphere of Cooperation and Collaboration:** Program placed three additional students in maintenance positions with industry partner Unical 145.

Contributors to the Report: David Yost

Unit Goals	Resources Needed	Where We Make an Impact: Closing the Loop on Goals and Plans
Increase Norms Scores - Increase	Full Funding Requested - Acquire	Reporting Year: 2017-18
national ranking in FAA written	modern Computer Based Testing	% Completed: 25
testing	software and hardware	Required equipment has been estimated and submitted to
Status: Active	Lead: David Yost	the district for future funding. June 2017

# **Unit Goals**

### Resources Needed

## Where We Make an Impact: Closing the Loop on Goals and Plans

Goal Year(s): 2016-17, 2017-18, 2018- One-Time Funding Requested (if

**Date Goal Entered (Optional):** 

09/01/2016

applicable): 18600

Type of Request: Instructional

Equipment

**Planning Unit Priority:** High What would success look like and how would you measure it?: Graduates would earn appreciably higher scores on certification written

exams.

**Documentation Attached?: No** 

Equipment cost updates to reflect current pricing (\$12,600 to \$22,000) March 2018 (08/02/2017)

Curriculum Update - Update curriculum to satisfy new FAA part 147 curriculum requirements (Anticipated enactment by FAA in summer 2019).

Status: Active

Goal Year(s): 2018-19 **Date Goal Entered (Optional):** 

09/01/2019

Airframe Trainers - Secure additional industry-industry relevant airframe trainers

Status: Active

Goal Year(s): 2016-17, 2017-18, 2018-

19

**Date Goal Entered (Optional):** 

09/01/2016

Full Funding Requested - Rotorcraft/

helicopter

Lead: David Yost

**One-Time Funding Requested (if** 

applicable): 240000

Type of Request: Instructional

Equipment

**Planning Unit Priority:** High

Reporting Year: 2017-18 % Completed: 50

Equipment was purchased but had to be returned to supplier due to discrepancies. We anticipate a replacement by September 2018. (07/02/2018)

**Completed** - Implementation of a powerplant lab project that concentrates on turboprop engine theory and operation The project would involve inspection and operation of a turboprop engine.

Lead: David Yost

**One-Time Funding Requested (if** 

applicable): 84000

Reporting Year: 2017-18 % Completed: 100

The equipment has been purchased and has been implemented into the powerplant curriculum (07/02/2018)

: Students stated in a program exit survey that this equipment greatly aided them in their understanding of turboprop engine theory. (07/02/2017)

**Unit Goals** 

#### Resources Needed

## Where We Make an Impact: Closing the Loop on Goals and Plans

Planning Unit Priority: High What would success look like and how would you measure it?: Student will demonstrate increased scores on exams and assignments pertaining to turboprop engines and their operation.

**Full Funding Requested -** Update of computer lab including modern computers, printers and current industry relevant software.

Lead: David Yost

One-Time Funding Requested (if

applicable): 20000

Planning Unit Priority: Medium

**Full Funding Requested -** Acquire an operational autopilot mock-up unit.

**Lead:** Byron Strope

**One-Time Funding Requested (if** 

applicable): 75000

Planning Unit Priority: High

**Completed -** Acquire a new ATC 600 transponder test unit.

Lead: Byron Strope

One-Time Funding Requested (if

applicable): 33000

Planning Unit Priority: Medium
What would success look like and
how would you measure it?: Student
will demonstrate increased scores on
exams and assignments pertaining to

avionics maintenance.

the district for future funding. (08/02/2017)

Required equipment has been estimated and submitted to

**Reporting Year:** 2016-17 **% Completed:** 100

Reporting Year: 2016-17

% Completed: 25

The equipment has been purchased and has been utilized by students and faculty in the airframe lab (07/02/2017)

: Students stated in a program exit survey that this equipment greatly aided them in their understanding of theory (07/02/2017)

**Full Funding Requested -**

 ${\bf Alternators,\, airframe\, componentry,}$ 

actuators and pumps. **Lead:** David Yost

**One-Time Funding Requested (if** 

applicable): 18500

Planning Unit Priority: High

**Reporting Year:** 2016-17 **% Completed:** 25

Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)

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Unit Goals	Resources Needed	Where We Make an Impact: Closing the Loop on Goals and Plans	
	Full Funding Requested - Replace Chadwick balancer with an industry relevant unit Lead: Byron Strope One-Time Funding Requested (if applicable): 11500 Planning Unit Priority: Medium	Reporting Year: 2016-17 % Completed: 25 Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)	
	Full Funding Requested - Replace all work stools with modern padded stools  Lead: David Yost  One-Time Funding Requested (if applicable): 9700  Planning Unit Priority: Medium	Reporting Year: 2016-17 % Completed: 25 Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)	
	Full Funding Requested - Replace shop roll up doors Lead: David Yost One-Time Funding Requested (if applicable): 85000 Planning Unit Priority: Low	Reporting Year: 2016-17 % Completed: 25 Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)	
	Completed - Acquire an operational forklift unit.  Lead: David Yost One-Time Funding Requested (if applicable): 14000 Planning Unit Priority: High What would success look like and how would you measure it?: AIRM personnel will be able to move heavy equipment with greater ease.	Reporting Year: 2016-17 % Completed: 100 The equipment has been purchased and has been utilized by faculty in the AIRMlab (07/02/2017)	: AIRM and IDE staff and faculty tare able to safe;y and efficiently move heavy equipment. (07/02/2017)
	Full Funding Requested - Acquire a new solvent and water based parts wash tank and heated parts washer.  Lead: David Yost  One-Time Funding Requested (if applicable): 19000  Planning Unit Priority: Medium	Reporting Year: 2016-17 % Completed: 25 Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)	

Partnerships - The Department will

**Unit Goals** 

#### Resources Needed

Where We Make an Impact: Closing the Loop on Goals and Plans

increase the number of industry partnerships and place more students in work experience environments

Status: Active

Goal Year(s): 2018-19

**Date Goal Entered (Optional):** 

05/29/2019

**Update Equipment- Acquire power** shear for airframe - Acquire several new industry relevant service and test metal for lab projects. equipment.

Status: Active

Goal Year(s): 2016-17, 2017-18, 2018- Lead: David Yost

19

**Date Goal Entered (Optional):** 

09/01/2016

Full Funding Requested - Acquire a power shear to aid in cutting sheet

**Describe Plans & Activities** Supported: Power shear

**One-Time Funding Requested (if** 

applicable): 6500

**Planning Unit Priority: Medium** 

Reporting Year: 2016-17 % Completed: 25

Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)

Increase certification. - Increase number of students who attempt and pass the FAA certification exams.

Status: Active

Goal Year(s): 2016-17, 2018-19 **Date Goal Entered (Optional):** 

07/02/2017

**Electrical trainers -** Acquire industry relevant analog and digital trainers to fill current shortage.

Status: Active

Goal Year(s): 2017-18, 2018-19 Date Goal Entered (Optional):

07/02/2017

Full Funding Requested - Acquire analog and digital trainers (4 qty 1810A and 4 atv 1820A)

**Describe Plans & Activities** Supported: 4 qty 1810A and 4 qty

1820A

Lead: David Yost

**One-Time Funding Requested (if** 

applicable): 15500

Reporting Year: 2016-17 % Completed: 25

Required equipment has been estimated and submitted to the district for future funding. (08/02/2017)

**Planning Unit Priority:** High

Reporting Year: 2016-17 % Completed: 25

Required equipment has been estimated and submitted to

Lab technician position - Hire a parttime evening lab tech to support evening tool crib.

Full Funding Requested - Hire a parttime evening lab tech to support evening tool crib.. \$26,000 per

#### Where We Make an Impact: Closing the **Unit Goals** Resources Needed Loop on Goals and Plans school year. the district for future funding. (08/02/2017) Status: Active Goal Year(s): 2017-18, 2018-19 Lead: David Yost **On-Going Funding Requested (if Date Goal Entered (Optional):** applicable): 27600 07/02/2017 Type of Request: Staffing **Planning Unit Priority:** High Part time Career Specialist - Acquire Full Funding Requested - Part time a Part time Career Specialist to assist Career Specialist with work experience placements and **Describe Plans & Activities Supported:** Specialist to assist with employer panels, career fairs, etc. Status: Active work experience placements and Goal Year(s): 2018-19 employer panels, career fairs, etc. Date Goal Entered (Optional): **On-Going Funding Requested (if** 05/29/2018 applicable): 55000 Type of Request: Staffing Planning Unit Priority: Medium Full-time evening professor - Hire Full Funding Requested - One fulland train a full-time professor which time professor will improve student satisfaction and **Describe Plans & Activities**

learning in the evening courses.

Status: Active

Goal Year(s): 2018-19

**Date Goal Entered (Optional):** 

06/26/2018

**Supported:** The department would benefit greatly from one full-time professor instead of four adjuncts. Continuity in lab and lecture would be improved and staffing issues would be greatly reduced. This position was eliminated in 2010 and should be restored in the interest of program and student success.

Lead: David Yost

**One-Time Funding Requested (if** 

applicable): 66000

**On-Going Funding Requested (if** 

applicable): 66000 Type of Request: Staffing Planning Unit Priority: High What would success look like and how would you measure it?: Student satisfaction (from student program

exit surveys) would indicate an increase in areas of satisfaction with the program, satisfaction with the professors and efficiency of the program.

DC would experience less issues finding qualified staffing which is expected to get worse considering the labor shortage in this industry.