

Ohio Aerospace and Aviation Technology Committee (OAATC)



**Annual Report
2017**

Letter from the Chairman

As chairman of the Ohio Aerospace and Aviation Technology Committee (OAATC), I am pleased to present the third annual report.

This year marked the first time since the committee's inception that membership for both public members and legislators ended. The committee welcomes those members that were reappointed as well as those appointed for their inaugural term. In addition to the new appointments, the chairmanship passed from the Ohio House of Representatives to the Ohio Senate according to the Ohio Revised Code. I was proud to be named chairman for the 132nd General Assembly.

Building on past successes such as securing \$12 million to upgrade aging infrastructure at Ohio's airports in the biennium budget and standing behind and affirming the Wright Brothers being first in flight, the committee made significant strides in 2017.

Our first meeting was held at the Youngstown Air Reserve Station in Trumbull County. Committee members heard from regional experts about the Aerospace assets in the region and had a tour of the station.

One of the primary tasks this year was to determine how best to serve the Aerospace and Aviation industries. It is the goal of my chairmanship to ensure the organization's sustainability. As a legislatively-driven committee, it is susceptible to the turnover that term limits bring. Unlike private industry, academia and the military, turnover occurs at a much faster pace in state government. With every election, experience and understanding leave. The OAATC is committed to being a resource for future state leaders.

To address this, the OAATC formed a team with members of the Ohio Aerospace & Aviation Council (OAAC). This Tiger Team generated a Vision Statement and a Mission Statement that is shared by both bodies and will be identified later in this report. This effort will ensure Ohio's united commitment to Aviation and Aerospace.

The Tiger Team identified three "pillars" around which subcommittees have been created: Economic Development, Education/Workforce, and Advocacy. These subcommittees are made up of members of both the OAATC and the OAAC. Furthermore, the subcommittees have chairs from both bodies, and two individual volunteers – one from the OAATC and the other from the OAAC – will coordinate the collaborative work of the subcommittees.

These subcommittees are already meeting to develop unique Goals and Objectives to help the organizations in their joint mission. Rallying points around opportunities for Ohio are being identified.

In the future, we will continue to work on legislation that implements a "fly away" tax exemption, something that already exists in 30 other states. This will allow Ohio to compete more fully for work related to the maintenance and upgrades to aircraft, as well as aircraft sales.

This is an exciting time in Ohio's history as the OAATC moves from planning to action. Action that will create a stronger, more robust and coordinated effort to solidify that Ohio is indeed America's Leader in Global Aviation and Aerospace.

Regards,

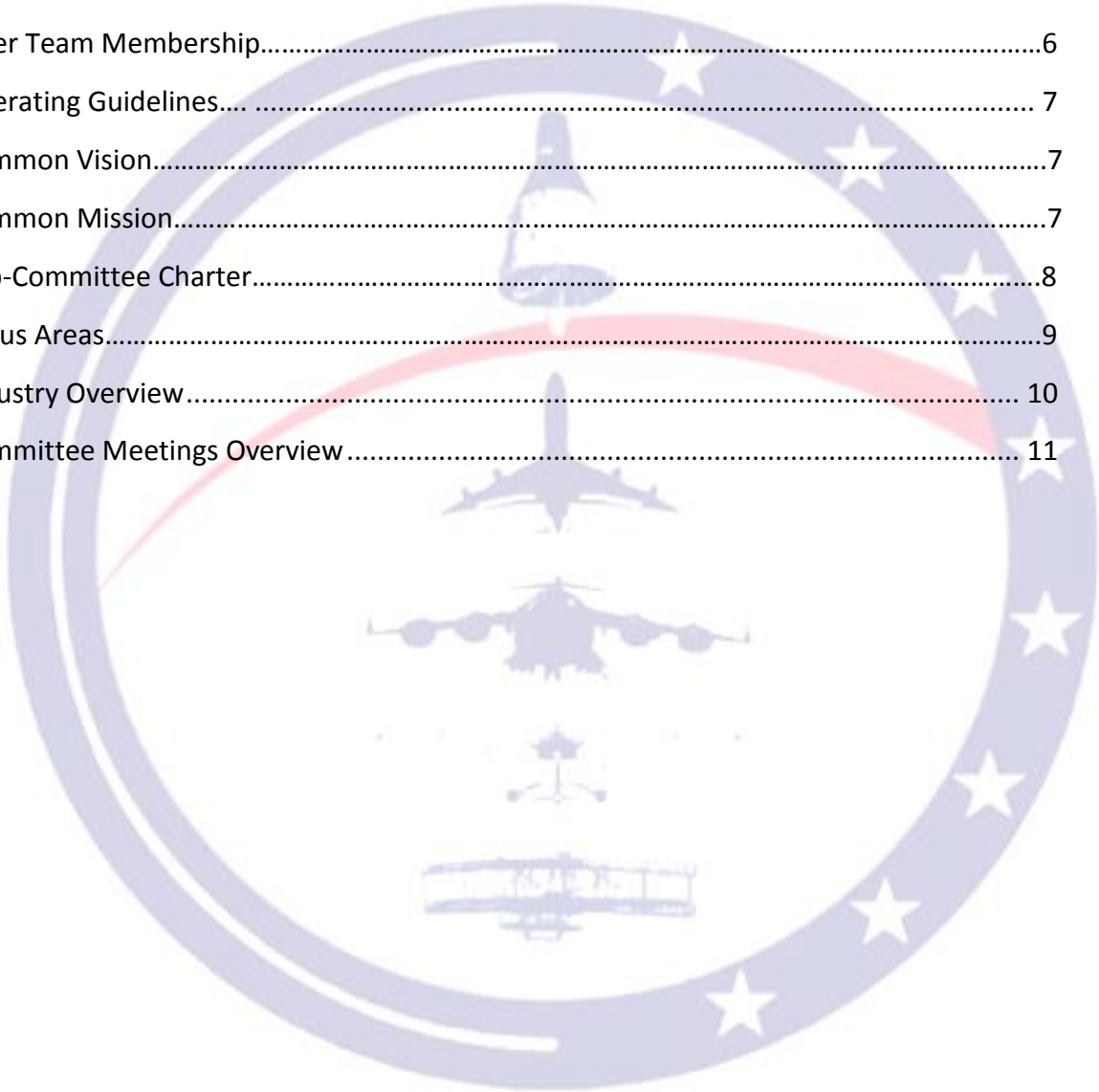


Senator Bill Beagle
Chairman, Ohio Aerospace and Aviation Technology Committee
Ohio's 5th Senate District



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Committee History

130th General Assembly

June 17, 2014 – Governor John Kasich signs into law House Bill 292 to create the Ohio Aviation and Aerospace Technology Committee (OAATC).

September 24, 2014 – Speaker William G. Batchelder and Senate President Keith Faber appoint the six legislative members to the OAATC.

October 31, 2014 – Deadline for applications for the fourteen public members.

December 17, 2014 – Announcement of the public appointees to the OAATC.

131st General Assembly

February 18, 2015 – OAATC meets for the first time as a full committee.

April 22, 2015 – OAATC meets and adopts “Operating Guidelines” and “Focus Areas.”

May 5, 2015 – OAATC creates informal workgroups to study each of the focus areas.

May 20, 2015 – OAATC meets and hears priority reports from each workgroup leaders.

October 6, 2015 – OAATC hosts Ohio’s annual Aerospace Day in order to highlight Ohio’s aerospace industry and its contributions to the State of Ohio. The committee also held a formal meeting, luncheon, and panel discussion in the Ohio Statehouse.

November 18, 2015 – OAATC meets and is updated on recommendations from workgroup leaders. The University of Dayton Research Institute and Bob Doyle from the Triumph of Flight project testify before the committee.

December 9, 2015 – OAATC meets and invites partner agencies such as the Ohio Aerospace & Aviation Council (OAAC), Ohio Aerospace Institute (OAI), and the NASA Glenn Research Center to provide updates. Relevant legislation is also discussed, as well as workgroup updates.

February 24, 2016 – OAATC meets to discuss the committee’s accomplishments in 2015 and to outline priorities for 2016. The committee continues to pursue the workgroup’s recommendations as well as incorporating partner updates into the meeting.

April 6, 2016 – OAATC hosts an informal committee meeting for workgroup leaders to prioritize recommendations for the rest of the year.

May 11, 2016 – OAATC meets to hear updates from partners such as the Ohio Federal Military Jobs Commission and the National Aviation Heritage Area. Relevant legislation is also discussed, and workgroup updates are given.

June 23, 2016 – OAATC meets at NASA Glenn Research Center for a field hearing. Northeast Ohio aerospace companies testify on the importance of the region in the aerospace industry. Members of the committee tour the NASA Glenn facilities.

September 21, 2016 – OAATC meets and invites the Dayton Development Coalition to brief the committee on the Ohio Defense Forum, as well as COPP Integrated Systems to provide an overview of their Footprint Technology. Committee member, Jeff Rolf leads a discussion regarding Aerospace Industry alignment.

November 30, 2016 – OAATC hosts Ohio’s annual Aerospace Day in order to highlight Ohio’s aerospace industry and its contributions to the State of Ohio. The committee also held a formal meeting, luncheon, and panel discussion on the Ohio Statehouse.

December 31, 2016 – The initial term of all members ends. Chairmanship of the OAATC alternates from the Ohio House of Representatives to the Ohio Senate in accordance with the Ohio Revised Code.

132nd General Assembly

January 24, 2017 – Governor John Kasich makes an appointment to the OAATC.

February 9, 2017 – Senate President Larry Obhof appoints the three Senate members to the OAATC.

April 17, 2017 – Speaker Clifford A. Rosenberger appoints the three House of Representatives members to the OAATC.

May 12, 2017 – Deadline for applications for the fourteen public members of the OAATC.

June 6, 2017 – Legislative members meet and adopt Senate Committee Rules. The committee also announces the fourteen public appointees to the OAATC.

June 16, 2017 – OAATC meets for the first time as a full committee at the Youngstown Air Reserve Station in Vienna, Ohio for a field hearing.

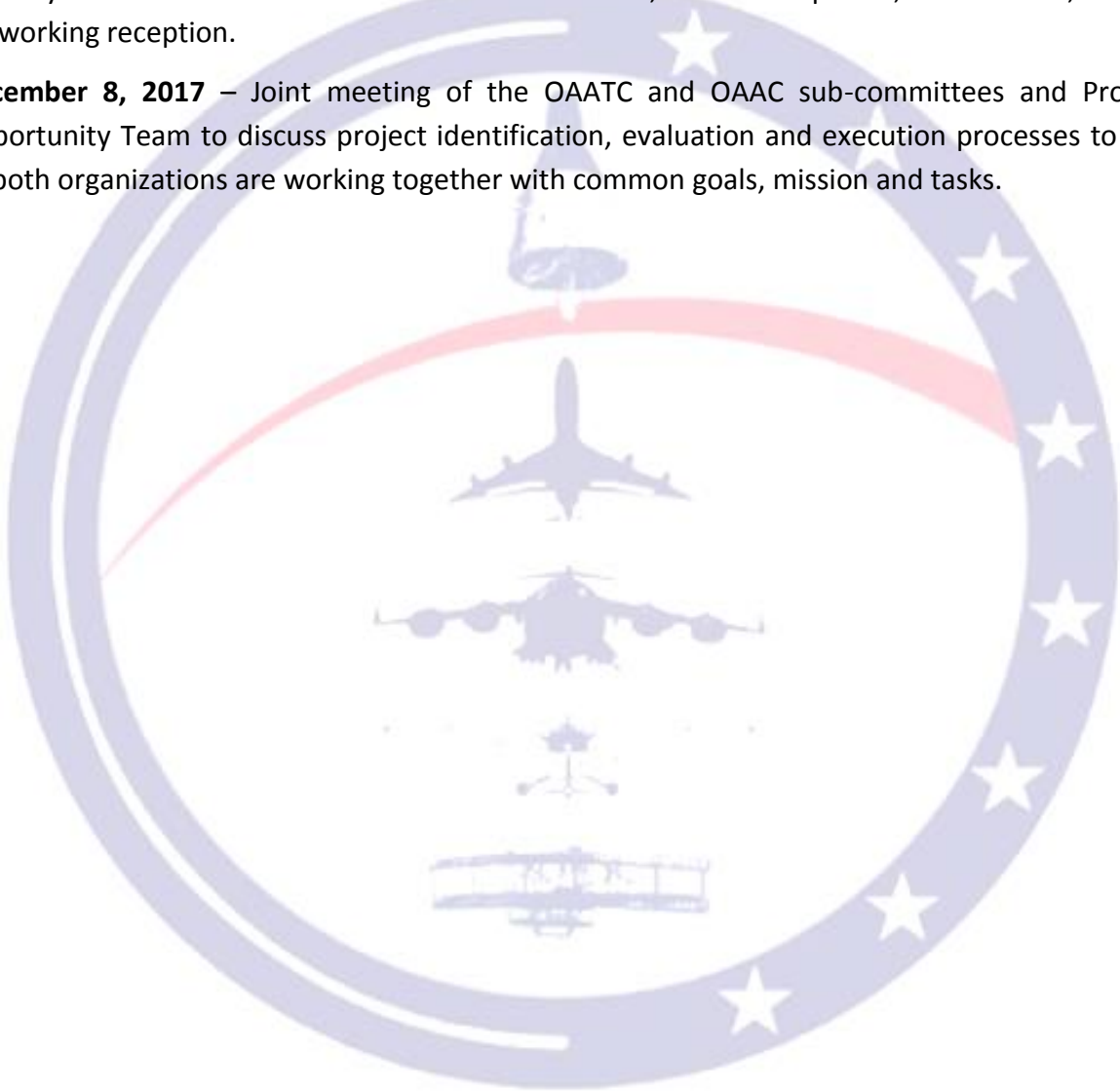
August 17, 2017 – At the discretion of OAATC Chairman Bill Beagle and OAAC Chairman Carlos Grodsinsky, a “Tiger Team” of the OAATC and OAAC is formed and holds an informal meeting to outline priorities and structure of the OAATC for the 132nd General Assembly.

September 13, 2017 – The “Tiger Team” of the OAATC and OAAC have an informal meeting to construct an illustrative framework that would be presented to all members of the OAATC at the November 7, 2017 formal meeting.

November 7, 2017 – OAATC meets and adopts a Common Vision and Mission. The committee also defines its new rallying opportunities and creates three new sub-committees. Chairpersons and members of each sub-committee are identified and are tasked to develop specific goals and objectives to implement strategies and execute the mission of the OAATC.

November 28, 2017 – OAATC hosts Ohio’s annual Aerospace Day, a strategic assembly of government, industry, and academic leaders to discuss the future of the aerospace and aviation industry in Ohio. The committee hosted exhibitors, held two panels, a luncheon, and a networking reception.

December 8, 2017 – Joint meeting of the OAATC and OAAC sub-committees and Project Opportunity Team to discuss project identification, evaluation and execution processes to use so both organizations are working together with common goals, mission and tasks.



Committee Charge

According to the enabling language of House Bill 292 (ORC 122.98), the duties of the committee shall include, but are not limited to, all of the following:

- Studying and developing comprehensive strategies to promote the aviation, aerospace, and technology industries throughout the state, including through the commercialization of aviation, aerospace, and technology products and concepts;
- Encouraging communication and resource-sharing among individuals and organizations involved in the aviation, aerospace, and technology industry, including business, military, and academia;
- Promoting workforce initiatives at all levels that support the aviation and aerospace industry;
- Promoting research and development in the aviation, aerospace, and technology industries, including research and development of unmanned aerial vehicles;
- Providing assistance related to military base realignment and closure.

Annual Report

An amendment was submitted by State Senator Bill Beagle to House Bill 49 during the 132nd General Assembly that requires the OAATC to compile an annual report and distribute copies of the report to the Governor, President of the Senate, and Speaker of the House of Representatives no later than December 31st of each year.

Committee Membership

The OAATC is comprised of six legislators appointed by the President of the Senate and the Speaker of the House of Representatives. One public member is appointed by the Governor and fourteen public members are appointed by a majority vote of the six legislative members.

General Assembly Members:

- Senator Bill Beagle (R-Tipp City) – Chairman
- Senator Sean O’Brien (D-Bazetta) – Secretary
- Senator Joe Uecker (R-Miami Township)
- Representative Laura Lanese (R-Grove City)
- Representative Rick Perales (R-Beavercreek)
- Representative Martin Sweeney (D-Cleveland)

Public Members:

- Tony Bailey – TEST-FUCHS GmbH
- Joseph Coogan – Acquisition Logistic Engineering/Quality Aero, Inc.
- Carlos Grodsinsky - ZIN Technologies, Inc.
- Mike Heil – Independent Aerospace and Defense Consultant
- Adam Holmes – Frueh Enterprises
- Virgil Johnson – Former FAA Air Traffic Controller/Supervisor
- John Leland – University of Dayton Research Institute
- Maureen McFarland – Kent State University (KSU)
- Paul Orkwis – University of Cincinnati
- Jeffery Rolf – Ohio Aerospace Institute
- Vincent Russo – Aerospace Technologies Associates LLC
- Ron Shroder – Frontier Technology Inc.
- Terry Slaybaugh – Dayton International Airport
- Robert Tanner – NetJets Inc.
- David Williams – The Ohio State University

Tiger Team Membership

At the order of Chairman Bill Beagle, the OAATC formed a leadership team with members of the OAAC. The creation of the Tiger Team is to ensure sustainability as the General Assembly endures term limits. The OAATC strives to be a resource for future state leaders and this united effort will ensure Ohio's commitment to aviation and aerospace.

General Assembly Members:

- Senator Bill Beagle (R-Tipp City) – Chairman
- Representative Rick Perales (R-Beavercreek)

OAATC Public Members:

- Carlos Grodsinsky - ZIN Technologies, Inc.
- Adam Holmes – Frueh Enterprises
- Vincent Russo – Aerospace Technologies Associates LLC
- Robert Tanner – NetJets Inc.
- Jeffery Rolf – Ohio Aerospace Institute

OAAC Public Members:

- Carlos Grodsinsky - ZIN Technologies, Inc. - Chairman
- Senator Bill Beagle (R-Tipp City) – OAATC
- Representative Rick Perales (R-Beavercreek) – OAATC
- Jeffery Rolf – Ohio Aerospace Institute
- Robert Tanner – NetJets Inc.
- Ann Heyward – Ohio Aerospace Institute
- John Horack – The Ohio State University
- John Kinney – GE Aviation (Ret.)

OAATC Staff:

- Ethan Zucal, Senior Legislative Aide – Office of Senator Bill Beagle
- Jacob Kingrey, Legislative Aide – Office of Senator Bill Beagle
- Nick Coyle, Legislative Aide – Office of Representative Rick Perales

Operating Guidelines:

Operating guidelines, also known as the committee’s “rules of engagement”, were adopted at the April 22, 2015 meeting in order to guide the committee process. All OAATC activities should comply with these guidelines:

- Fulfill duties outlined in enabling legislation
- Make recommendations that are “actionable” and “measurable”
- Leverage or extend Ohio’s existing competitive advantage
- Unite the aerospace and aviation organizations in the state, educational and research organizations, state government agencies, industry, and the national laboratories
- As a group, seek to achieve statewide political consensus

Common Vision:

Adopted by the committee at the November 7, 2017 meeting, “Ohio – America’s Leader in Global Aviation and Aerospace” has become the committee’s vision for the 132nd General Assembly.

Common Mission:

Adopted by the committee at the November 7, 2017 meeting, “Create opportunities in Ohio for economic growth, jobs, education and to shape the future of the Aviation and Aerospace Industries” has become the committee’s mission for the 132nd General Assembly.

Sub-Committee Charters

Sub-Committees were established at the November 7, 2017 meeting and will work collaboratively with working groups from the OAAC. In addition to their work, the sub-committees will be co-chaired by two members, each representing the OAATC and OAAC. The following three working groups will serve as the sub-committees during the 132nd General Assembly:

- **Education**
 - Maureen McFarland – Co-Chair
 - Tasks:
 - Aerospace talent coordination
 - Retention strategy
 - Strategic placement of Ohio graduates
- **Economic Development**
 - Jeff Rolf – Co-Chair
 - Tasks:
 - Identify opportunities to leverage Ohio assets
 - Identify and pursue opportunities for Job and Economic growth in Ohio
- **Advocacy**
 - Bob Tanner – Co-Chair
 - Tasks:
 - Identify opportunities to promote Ohio globally
 - Develop internet and social media presence

OAATC and OAAC Co-Chair led sub-committees will develop specific goals and objectives to implement strategies and execute the mission of both the OAATC and OAAC. To ensure that the two organizations are able to communicate effectively, the sub-committees will be overseen by a Project Opportunity Team co-chaired by a member of the OAATC and a member of the OAAC. Adam Holmes will serve as a co-chair on behalf of the OAATC.

Focus Areas

Focus areas were also adopted at the November 7, 2017 meeting and given to the three sub-committees. The following primary focus areas are meant to reflect the broadest categories that need to be studied by the committee and its sub-committees but are not limited to:

- Advanced aviation and space technologies and systems:
 - Vehicle systems
 - Propulsion systems
 - Communications
 - Associated ecosystems
- Advanced materials and manufacturing

OAATC-OAAC subcommittees will develop specific goals and objectives to implement strategies and execute the mission of the OAATC through Rallying Opportunities. Examples include:

- Next Generation Aviation
 - Integrated Airspace – UAV/PAV/LDV-Aircraft
 - Next generation air breathing propulsion, acoustic abatement, efficient combustion
 - Hybrid Electric Aircraft - Infrastructure, propulsion, advanced manufacturing supply base, materials
- Next Generation Air Traffic Control (ATC) – “NextGen”
 - Public Private Partnership – FAA-non-profit board to advance ATC of future
 - FAA reauthorization opportunity
- Next Generation Aerospace/Aerospace Communications/Space
 - Hypersonics, next generation air/ramjet propulsion
 - Internet and hi-bandwidth content
 - Small satellite ground and in-space services, propulsion and situational awareness
 - Integration of satellite based and atmospheric based communications

As the OAATC looks to advance the aerospace and aviation industry from present technology to future technology, it is the goal of the OAATC to incorporate the following with the industry’s current state, exploration, implementation, and future state:

- Technology (Engineering)
- Infrastructure (Engineering, Sociology)
- Regulatory Environment (Public Policy)
- Commerciality (Business)

Industry Overview

“Since the Wright brothers first invented powered flight and John Glenn first orbited the moon, Ohio has been at the forefront of aerospace innovation. The state’s innovation infrastructure provides companies with the necessary resources to produce your products in the best way possible now and in the future.

Today, Ohio is working to attract innovative organizations that can benefit from the state’s industry assets and bolster the state’s position as a leading hub for manufacturing and aerospace innovation.”

- JobsOhio

Ohio’s Aerospace and Aviation Industry Quick Facts¹

- More than 590 businesses statewide
- 25 astronauts have come from Ohio
- Over \$15 billion gross state product (GSP)
- 80 campuses with engineering and engineer technician programs
- More than 10,000 engineering and engineering technician degrees annually
- Number 1 ranked supplier state to Airbus and Boeing
- Developing the first site in the U.S. that will offer UAS innovators the capability to fly and test next-generation systems beyond visual line of sight in the National Aerospace System.
- Over \$10 billion invested annually into engineering research and development in Ohio.
- Ohio hosts two world class research and testing facilities at NASA Glenn Research Center and the Air Force Research Laboratory at Wright-Patterson Air Force Base.
- Manufacturing USA innovation institutes located in Ohio include:
 - America Makes
 - IACMI
 - Lightweight Innovations for Tomorrow
 - NextFlex
 - The Air Force Research Laboratory at Wright-Patterson Air Force Base
 - NASA Glenn Research Center
 - Materials and Manufacturing Aerospace Technology Hub
 - Battelle
 - Edison Welding Institute

¹ Courtesy of JobsOhio

Meetings Overview

The following is a brief overview of the Ohio Aerospace and Aviation Technology Committee's (OAATC) meetings:

Ohio Aerospace and Aviation Technology Committee

June 6, 2017 – Senate Members Lounge

The Ohio Aerospace and Aviation Technology Committee was called to order pursuant to the meeting notice at 11:06 a.m.

Attendance was taken and a quorum was present.

The first order of business was to adopt Senate Committee Rules. Chairman Beagle moved that the committee adopt Senate Committee Rules. Senator O'Brien seconded the motion and without objection the committee adopted Senate Committee Rules.

The second order of business was to approve the Governor's Appointment of John Leland to the committee. Chairman Beagle moved that the committee approve the Governor's Appointment. Representative Perales seconded the motion and without objection the appointee was approved.

The third order of business was to appoint 14 non-legislative members to the committee pursuant to the Ohio Revised Code. Senator Uecker made the motion that the committee appoint the following individuals:

Tony Bailey	Joe Coogan	Carlos Grodsinsky
Mike Heil	Adam Holmes	Virgil Johnson
Maureen McFarland	Paul Orkwis	Jeff Rolf
Vince Russo	Ron Shroder	Terry Slaybaugh
Bob Tanner	David Williams	

Senator O'Brien seconded the motion and without objection the appointees were appointed.

The fourth order of business was to appoint a Committee Secretary. Chairman Beagle motioned that Senator O'Brien be appointed Committee Secretary. Senator Uecker seconded the motion and without objection the appointee was appointed.

The committee adjourned at 11:18 a.m.

Ohio Aerospace and Aviation Technology Committee

June 16, 2017 – Youngstown Air Reserve Station (YARS), Vienna, Ohio

The Ohio Committee on Aerospace and Aviation Technology was called to order at 10:16 a.m.

Attendance was taken, a quorum was present.

The first order of business was to approve the June 6, 2017 minutes. Without objection the minutes were approved.

The following individuals provided updates before the committee:

Col. Dan Sarachene, Commander, 910th Airlift Wing, YARS

- History and mission of the 910th Airlift Wing
- Opportunities for collaboration with the State of Ohio and state universities
- Joint Land Use Study progress report

Major General Mark Bartman, Adjutant General, Ohio National Guard

- Update on the Ohio National Guard

Dr. Maureen McFarland, Senior Academic Program Director, Aeronautics, Kent State University

- History of KSU Aeronautics program and new Aerospace Engineering Program
- Opportunities for collaboration with YARS, Youngstown State University (YSU), others

Mike Hripko, Associate Vice President for Research, Youngstown State University

- Background on YSU STEM program and America Makes
- Opportunities in additive manufacturing (3D printing) and collaboration with YARS, KSU and the Ohio Federal Research Network

Charles George, President and CEO, HAPCO Inc.

- Additive manufacturing in the aerospace industry
- Opportunities for public-private additive manufacturing partnerships

Vito Abruzzino, Executive Director, Regional Chamber Foundation/EOMAC

- Update on the East Coast Missile Defense System

The committee adjourned at 12:16 p.m.

Ohio Aerospace and Aviation Technology Committee

November 7, 2017 – Statehouse Hearing Room - 017

The Ohio Aerospace and Aviation Technology Committee was called to order pursuant to the meeting notice at 10:12 a.m.

Attendance was taken and a quorum was present.

The first order of business was to approve the June 16, 2017 committee minutes. Without objection the minutes were approved.

The second order of business was a report of the Tiger Team. OAATC Chairman Beagle and OAAC Chairman Grodsinsky reported the following:

- Common Vision of OAATC and OAAC
- Common Mission of OAATC and OAAC
- Projects and Rallying Opportunities

The third order of business was the introduction of the three sub-committees:

- Three Sub-Committees:
 - Education
 - Economic Development
 - Advocacy

Following the introduction of the sub-committees, members were assigned to each Sub-Committee and chairpersons were identified.

The fourth order of business was the breakdown of the Sub-Committees for the 132nd General Assembly. Adam Holmes led a general discussion of the committee regarding the following:

- Three Sub-Committees:
 - Education
 - Economic Development
 - Advocacy
- Projects and Rallying Opportunities
 - Call to Action of Sub-Committees
- Mission to Sub-Committees

The committee adjourned at 12:08 p.m.

