

KANSAS WING **OX5 NEWS**



Harold Walter President 2019
 Dale Krebbs 1st VP 2018
 Joe Latas 2nd VP 2020
 Jay McLeod Secretary 2018
 JoAnn Bailey Treasurer 2020

Harry Clements Membership 2018
 Bobbie Walter Governor 2018
 Doug Moler Program Chair 2019
 Sam Snyder Governor 2019

MARCH 2018 – VOL 1 HAROLD AND BOBBIE WALTER PLUS JOE LATAS, EDITORS

OX5 AVIATION PIONEERS KANSAS WING

2:00 PM ~ PROGRAM

LARKSFIELD PLACE

SATURDAY, APRIL 21, 2018

LARKSFIELD PLACE
7373 EAST 29TH St North
Wichita, KS 67226

Meeting/Program: The meeting will be held at Larksfeld Place located at 7373 East 29th Street North. It is between Rock Road and Woodlawn, and on the south side of 29th. Park in the lot west of the main entry. Meet in the auditorium. Enter the lobby front door, or the west entrance. The auditorium is located just inside and to the left of the west welcome door. The program is open to OX5 members, guests and also for those who are interested.



Program: Our program will be a presentation by Harry Clements.

The Title of his presentation is "The Marines Needed a Few Good Planes" with subtitle "The Amalgamation of Cessna's OE-2". The Corps offered Cessna that if we added protection from enemy fire, more speed and more range to the Army's L-19 Liaison aircraft, and certificate it under the Utility category of commercial airplane, they would buy 25 of them. It was to be a modification of an existing configuration, so was not to be competed, but if we didn't meet their specification we would not get a contract. With such a small quantity of units expected, we looked to use major parts of existing models, so mated an L-19 fuselage with a Model 180 wing and with a new engine and its compartment and an enlarged tail did the job and got the contract. The aftermath will be explored.

President's Message: OX5 member, Doug Moler, organized for several pilots to be nominated for the FAA's Wright Brothers Master Pilot Award.

The ceremony was performed at the Larksfeld Place Auditorium December 2, 2017. A **great** many persons attended. OX5 members who received the award were Doug Moler, Jay McLeod and Harold Walter. Harry Clements was previously awarded the Master Pilot Award. Thank you for work well done, Doug Moler. In addition a regular meeting is now being held at Scotch and Sirloin once a month.

Since our last meeting, Bobbie and I have moved into Larksfeld Place in Independent Living. Shortly after we moved in, Bobbie fell in the Fitness Center, and was in rehab at the health center. While she was there, I contacted the flu, and because of that we were each separately isolated for awhile. We are now in our apartment, and again enjoying Larksfeld.

I hope to see you at the April 21 OX5 Program at Larksfeld Place at 2:00 PM

**Harold Walter, President KS Wing
OX5 Aviation Pioneers**

Secretary's Report: President Harold Walter opened the meeting with a call for nominations and election of Wing officers and Governors for 2018.

Due to the limited number of active members in the Wing, Harold suggested that those currently holding an office be asked if they would continue in that office. Further he asked if anyone wished to nominate someone else for the office of president. With these two issues before the group those present were polled and each affected person agreed to continue. In regard to the office President, those present agreed that Harold and Bobbie had done a

good job keeping the Wing together scheduling meetings and publishing an excellent newsletter; therefore, Harold should continue as President if he wished to do so. Harold and those present agreed.

Next was the First Vice President. Sam Snyder has been in this position but Sam was not present, and word had been passed that Sam may not want to continue. With this in mind McLeod interjected that he would like to consider Dale Krebbs for such a position and believing Dale could be a positive influence for the Wing. Since Sam was not in attendance, it was suggested that we list Dale and Sam together for the 1st Vice President until we could discuss it further with Sam. At that we list Dale and Sam together for 1st Vice President until discussion with Sam. At this point Dale expressed some concern about the nomination since we had not indicated what would be required of him and he was on the Board of several other agencies and did not want to be overloaded.

Doug Moler asked if we had job descriptions for the officers of the Wing. No one was aware of any published at the wing level. There are descriptions at the National level published with the by-laws and Constitution. Doug Moler thought it would help if officers knew what was expected of them and nominees would be aware of what was expected of them. The Secretary asked if such information was the responsibility of the Secretary. He was asked to look at the records to see if anything is available.

The Second Vice President has been Joe Latas who also was not present.

Harold suggested we enter his name again until further notice. McLeod agreed to continue as Secretary if those present wanted this. It was voted and approved.

JoAnn Bailey, though not present, was reentered as Treasurer. All the Wing Governors were asked to continue to serve even though some were not present. Harry Clements agreed to serve as membership Chair.

Our membership meeting was the next topic including finding another place to have the meeting. Doug Moler agreed to develop a program. The date of the meeting was said to be April 14th or 21st, and will be announced later. The location of the meeting was to be at Larksfield and Harry Clements was to arrange for a room.

Jay McLeod, Secretary KS Wing OX5 Aviation Pioneers

Treasurer: Please mail or see JoAnn Bailey to pay OX5 Kansas Wing annual dues of \$10. Please note that the fiscal year begins on January 1.

JoAnn Bailey
1736 S. Emporia
Wichita, KS 67211

JoAnn Bailey, 316-258-495

OX5 National dues are \$30. Make check payable to *OX5 Aviation Pioneers*, and mail to:

OX5 Aviation Pioneers
PO Box 769
Troy, Ohio 45373

Harry Clements & Harold Walter: A recent discussion with Harry and me about modifications to airplanes in the development stage resulted in some interesting comments. During flight testing, many times there are needs to improve a situation. Analysis often doesn't entail details well enough to solve the problem. However, knowledge of general airflow characteristics by an experienced person can indicate a probable solution. Both Harry and I have experienced this problem and have had satisfactory modifications that fixed the problems.

An example for Harry was modifying the dorsal fin of the Cessna OE-2 for better directional control. An example for me was adding a bump to the left elevator of the Convair 600 to provide satisfactory climb stability. There have been many other cases. With experience some such possible situations may be noted during the design phase, and a simple solution provided in the development.

Sometimes an eye-ball item can be useful. During the flight testing of the Beech Starship, it was noted by me that the aileron hinge position appeared to be low by 0.2 inch. A crew was called in to take special sighting measurements. At the conclusion the Chief, Clair Donnelly, asked if I was the one who said that the ailerons were low. Expecting a negative comment about it, I said, "Yes." Clair's response was, "Well, you have good eyesight. They are low by 0.19 inch."

Experience and special interest in the project can result in many problems being solved.

Editor Harold Walter gives special thanks to the Members and Officers for their support to our OX5 organization.

In our move, and a necessary email program change, email addresses were lost. Hopefully, they have been replaced. If you know of someone who should be getting our newsletter, but isn't, let Harold Walter know.

Do you know that Cessna's former Chairman of the Board, Dwane Wallace, was an excellent trumpet player?

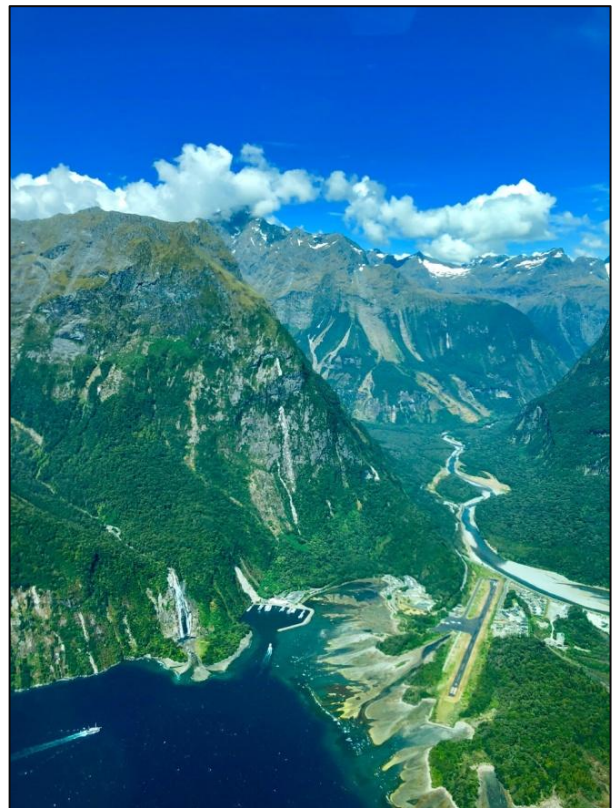


The Matterhorn in Switzerland, taken from a Cessna T210N, photo courtesy of Edwin Brenninkmeijer.

Note: Our OX5 Organization members have access to the Kansas Wing newsletter. Many in our program audience do not have access to our newsletter. Therefore, organization business will be dispensed with for this meeting.



A shot of the Texan T-6 II formation over RAF Valley, photo courtesy demo pilot team O'Malley, Wrinn, Busenitz and Hall; and associates, Textron Aviation.



In New Zealand, Milford Sound Airport (NZMF), seen from a Beechcraft King Air 350 demonstrator; photo courtesy Mariella Roth-Walraf, demo pilot, Textron Aviation. Note: airport is near lower RH corner of picture.



FAA's Wright Brothers Master Pilot Award get-together at Scotch & Sirloin.

The FAA's Wright Brothers Master Pilot Award

December 2, 2017 the FAA awarded the FAA's Wright Brothers Master Pilot Award to 20 pilots at Larksfield Place located in Wichita, Kansas. This is the most prestigious award given to the Certified Pilots by the Federal Aviation Administration. The award is named after the Wright Brothers, the first U.S. pilots.

The FAA Representatives attending were:

- Mr. James Lamb, Safety Liaison, FAAS Team Coordinator ICT
- Mr. Jerry Eichelberger, Manager, Wichita FISDO
- Mr. Joe Gonsalves, Assistant Manager, Wichita FISDO
- Mr. William Bossert, Division Manager, AFG 800

This Master Pilot event had the most pilots that had ever been recipients at one time. Award requirements include those who have been pilots for more than 50 years since solo, and also who have not been faulted for an accident, nor broken FAA regulations.

The 20 pilot recipients were:

- ✓ Ron Black
- ✓ Dave Blanton
- ✓ Robert Blanton
- ✓ Wayne Bormann
- ✓ Rex Corbin
- ✓ Dick Curtis
- ✓ Capt. Robert Davis
- ✓ Don Grunke
- ✓ Larry Hastings
- ✓ Col. Red Kimball
- ✓ Dr. Lawrence Lay
- ✓ Nicky Lee Mardis
- ✓ Jay McLeod
- ✓ Capt. Doug Moler
- ✓ Dr. Terry Lee Poling
- ✓ Jim Smith
- ✓ Ernest Albert Spriggs
- ✓ David Herbert Tiday
- ✓ Donald Duane Yoder
- ✓ Harold Walter

DOWNLOAD ON THE HORIZONTAL TAIL

For a classical aircraft configuration, often a comment is made concerning the airplane stability contribution from the horizontal tail. The comment to which I'm referring relates to thinking that a down-load on the tail is necessary in order for the tail to contribute to airplane longitudinal stability. I feel that an explanation is necessary. Causes of a tail download are: wing camber, flap deflection, forward cg location, propulsion thrust line, etc.

The load on the horizontal tail has nothing to do with airplane stability however. The stability contribution is related to the rate of change of the tail load pitching moment as a function of angle of attack, in opposition to the rate of change of the value of the slope of the tailless airplane. Assuming a fixed control position, the tail load moment must become more of an up-load-moment as airplane angle of attack is increased, in comparison to the rest of the airplane.

Considering the control system to be fixed, as in a wind tunnel, longitudinal stability is related to the pitching moments about the airplane center of gravity as a function of angle of attack. Generally speaking, with the center of gravity at 25% of the wing MAC (Mean Aerodynamic Chord), a typical CG location, the pitching moments of the airplane without the tail, increases nose up as the angle of attack increases. For a stable airplane, the horizontal tail produces a nose down moment that is greater than the airplane's nose up moment.

The trim loads of the wing and tail have essentially nothing to do with the stability. The trim tail loads for an airplane with a lot of wing camber is normally a down load. An example of this is a highly cambered wing, or one with the flaps down. As the angle of attack increases, the tail loads become more positive (an up-load). It is easier to describe this discussion with equations, than using general verbal comments. An example of a configuration with up-loads on both surfaces is the canard airplane configuration. Both the canard, forward wing, and the wing carry an up-load for all normal flight conditions. The Canard airplane can be thought of as a conventional configuration with a very small wing and a large horizontal tail. Both surfaces lift.



The Curtiss OX5 engine is ready to run. James Beisner, past Nat'l OX5 President, and George Levis, former Lycoming representative, are on the left.

The following was received just before sending out this newsletter.

Subject: Volunteers Needed: Textron Aviation-Sponsored AIAA Design/Build/Fly Competition

The Textron Aviation-sponsored **American Institute of Aeronautics and Astronautics (AIAA) Student Design/Build/Fly competition** will be held at the Cessna East Field on April 19-22, 2018. The competition challenges University Engineering students from around the world to design a Remote Control (R/C) airplane to specified missions and payloads. The goal is a balanced design possessing good demonstrated flight handling qualities and practical and affordable manufacturing requirements while providing a high vehicle performance. Then, to test theory vs. reality, the students build the aircraft and bring it to Wichita to compete and see who best meets the design goals.

To help make the event a success, volunteers are needed for the following:

- **Technical Inspection Judges** – The R/C aircraft must be inspected for safety of flight and mission readiness. Prior experience with R/C aircraft is required. Please contact Edward Feltrop by April 6th.
- **Contest day volunteers** - Flight judges and crowd control support are needed for the contest weekend. No experience required. Please contact Edward Feltrop by April 6th.

This has been a very successful event for the AIAA and for Cessna. With 90 teams from Universities around the world entered this year, it promises to be a success once again. More information about the event can be found [here](#).