U.S. CIVIL AIR PATROL
SQUADRON 442
KERRVILLE, TEXAS

MONTHLY NEWS

"ReCAPping what you need to know …. March 2023"

Maj THOMAS KING CAP
SQUADRON COMMANDER

Maj GEORGE OTTO CAP
ADVISOR TO THE COMMANDER

LTC JOHN MURRAY CAP
DEPUTY SQUADRON COMMANDER

1Lt. JOSH TAYLOR CAP
DEPUTY COMMANDER FOR CADETS

Capt DIANN BLACK CAP
ADMINISTRATION OFFICER

Capt JOHN DORIE CAP
SAFETY OFFICER

COMMANDER'S CORNER (Tom King)

Tom welcomed those in attendance at last night's February squadron meeting, held in-person at the KERV conference room as well as via Zoom. The next monthly squadron meeting will be from 6:00 – 7:00 pm on Wednesday, 5 April 2023 in the Kerrville Airport FBO conference room, in-person as well as via Zoom.

DATES & EVENTS TO REMEMBER

WHAT	*WHERE*	*WHEN*	*WHO*
SAREX / ground team training	Kerrville Airport (KERV)?	Tuesday, 14 March 2023?	ES Qualified members
Squadron Monthly Meeting	Kerrville Airport, FBO + Zoom	Wednesday, 5 April 2023	Squadron members and guests
Mountain Flight Clinic (MFC)	Alpine, Texas	Weekend of 14-16 April, 2023	ES Qualified members

For additional information on these activities, contact either Tom King (210-467-7678) or John Murray (830-285-3248).

OPERATIONS/EMERGENCY SERVICES (Tom King for Bob Hamm)

Prior to the squadron airplane (N794CA) going into 100 hour inspection/oil change at Tac Aero at Gillespie County airport, we were able to complete a number of flight hours. These included two CAP Form 5 and one CAP Form 91 + abbreviate CAP Form 5 check rides, onboarding sorties and several February SAREX training sorties. Tommy Hayes reported that the airplane flew 13.7 Hobbs hours and 11.2 tach hours in February with a year-to-date total of 71.9 Hobbs hours.

Bob reminded everyone that our airplane will be utilized at Denton, Texas as a part of the USAF Rated Preparatory Program (RPP) for the latter half of March. The RPP uses experienced CAP flight instructors to enhance aeronautical knowledge and basic flight skills of USAF officers and enlisted members seeking to fly with the USAF. Our airplane will also be utilized as a part of the Battalion Culminating Training Exercise (BN CTE; "Falcon Virgo") Training in El Paso, Texas this coming June. The BN CTE is a series of exercises conducted by the Continental U.S. NORAD Region to hone NORAD's intercept and identification operations during airspace security events. Aircraft participating in the flight exercise include Air Force F-16 aircraft, Army UC-35A aircraft, Navy King Air 300 aircraft, Coast Guard MH-65D Dolphin helicopters, and Civil Air Patrol Cessna 182T aircraft (*e.g.*, N794CA).


USAF RPP participants


Alpine-Casparis Municipal Airport (E38)

Because of the our aircraft's 100 hour inspection and various commitments for our airplane, we will not be able to conduct CAP (or AFROTC) orientation flights until April 2023 or later. We will also resume our participation in Group V cadet orientation flights at Stinson and/or Georgetown in April or later as well.

N794CA is currently at Tac Aero as mentioned above. Tommy Hayes said that Tac Aero will start the 100-hour inspection today. He's not sure how long the airplane will remain at Tac Aero but hopes we'll have the airplane back with 1-2 weeks. We want to set up an airplane clean-up day when the airplane returns to KERV.

The Mountain Flight Clinic (MFC) will be held over the weekend of 14-16 April 2023. The next planning session will be held within the next 2-3 weeks. This planning meeting will again be held in the Kerrville Airport FBO Conference Room, both in-person and via Zoom. If you plan to attend this year's MFC and have an interest in being on staff, we can definitely use your help! Please plan on attending this planning meeting.

ADMINISTRATION (Diann Black, Gary Black and John Murray)

Our squadron now has a post office box: PO Box 774, Center Point, TX 78010-0774. Diann Black and Bob Hamm will have keys to the box. An additional key has been placed in the squadron's airport storage locker.

TXWG is pushing squadrons to update squadron member photographs (posted in eServices). These photos must meet a fairly specific format. We will plan to meet (probably at the KERV FBO) to get this done as soon as reasonably possible (hopefully later this month).

Diann reported the squadron bank account balance is $7,559.63. We have a recurring annual payment for both the hangar and storage locker at KERV. Additional expenses include cadet supplies.

CADETS (Tom King for Josh Taylor)

Josh is working with Bob Hamm on organizing ground team training as a part of our participation in this month's SAREX. For more information, please contact Josh or Bob.

COMMUNICATIONS (Mort McKenzie)

Mort reported his installing a replacement CAP/FM radio in the panel of the squadron airplane (N794CA).

SAFETY (John Dorie)

John discussed "Bird Strikes":

Bird strikes are "old news" in aviation circles. The first reported bird strike was by Orville Wright while flying over a corn field in Ohio in 1905. From 1988 to 2019, there were 292 human fatalities attributed to wildlife strikes globally. During that same time frame, there were 271 civil aircraft either destroyed or damaged beyond repair due to wildlife strikes globally. "Old news" or not, bird strikes can be a serious concern.

About 53% of bird strikes occur from July to October which is when young birds recently have fledged from nests and fall migration occurs. Though bird strikes can occur at any time of the year. We very often fly in the vicinity of buzzards in flight. About 63% of bird strikes with civil aircraft occur in day, 8% occur at dawn or dusk, and 29% occur at night. About 61% of bird strikes with civil aircraft occur during landing phases of flight (descent, approach and landing roll); 36% occur during take-off run and climb; and the remainder (3%) occur during the enroute phase.

Bird strikes are common. Manufacturers build and test aircraft to withstand most bird strikes. A major risk is if the bird makes contact with critical or fragile components. Thankfully the chances of this happening are relatively uncommon.

The biggest danger comes from a combination of larger birds at higher aircraft speeds, there is still a small risk presented even from tiny birds. What parts of our Cessna 182T are most at risk in a bird strike? First and probably most importantly is a bird strike that impacts the windscreen. If the impacting bird is large enough and passes through the windscreen, the cockpit occupants (pilot/co-pilots/passengers) are obviously are risk for serious injury.

Propellors already spin at phenomenal speeds, and they aren't designed to take structural shocks while rotating. A bird strike could shock load the engine, bend piston rods, or even break the propellor entirely. Probes are vital to gather air data to relay to the cockpit. If these are blocked or damaged, then the data isn't reliable. Probes tend to be one of the worst areas to sustain a bird strike. Flight control surfaces, particularly on smaller aircraft, are vulnerable to bird strikes. Because they are lighter and smaller, they are more readily damaged.

We all know that force equals mass multiplied by acceleration. The less force there is, the smaller the likelihood of damage occurring. We can't change the mass of the bird or the aircraft, but what we can change is our acceleration. Or, to put it even more simply, slow down. Not only will this minimize the risk of severe damage, but it also gives the pilots more time to 'see and avoid' (and quite possibly gives the birds the same luxury too!) Bird strikes at night can often come from birds being entirely unaware of the presence of an aircraft. Make yourself visible. The best way to do this at night is by using the aircraft lights.

Bird strikes are a lesser hazard to aviation than other well-known hazards such as loss of control in flight, controlled flight into terrain, and runway excursions, but they can and do present risk that needs to be addressed. You're flying N794CA and a bird strike is eminent. Can you avoid a bird strike? A pilot's first temptation is often to 'push the nose down to get away from the impending threat. However, it is a bird's natural behavior to also 'dive' away from predators. If you encounter either a single bird or flock, it is far better to try and climb over them to avoid a collision.

Pay particular attention to possible bird activity when flying at low altitude (*e.g.*, search and rescue patterns), over water courses, nature reserves, or other areas of known or expected bird activity.

And if you do experience a bird strike, what then? First and foremost, fly the airplane and maintain flight path control. Monitor flight and engine instruments. Land at the nearest suitable airport to inspect for damage. Consider reporting all known or suspected bird strikes or bird activity on or in the vicinity of the airport via established procedures. Ideally this information reaches all stakeholders, including air traffic control, the airport operator, the airline, airplane and engine manufacturers (particularly the local representative), the national regulatory authority, and the appropriate national bird-strike committee or aviation wildlife hazard group.

Remember that TXWG mandates that all members must participate in the monthly safety briefing prior to participation in any squadron activity including air operations. This participation must be documented. Your signing in at the monthly squadron meeting completes this requirement. You need no more safety briefing for this month. If you cannot attend a particular monthly meeting, respond "RECEIVED" to the e-mail to which the monthly newsletter is attached. And you'll get credit for the safety briefing.