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CHOCK TALK

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"The Iceman Cometh"

Wanna start a fist fight with a bunch of pilots? Tell 'em there's no reg that prohibits flight into known icing. Fine, but you ARE required to comply with the POH limitations of your airplane because anything less would be a violation of 91.13 (careless and reckless operation).

Pop question: There's an AIRMET ZULU today for possible icing from 1000' to 10'000'. It covers the entire state of NJ and half of PA. Can you go fly? An AIRMET is advisory information about "weather that may be

hazardous…" You need more information.

Just like the stuff itself, the definition of "known icing" is hard to get ahold of. There has been much written and the pendulum has swung both ways from "don't fly" to "proceed with caution". This guidance comes to us through an FAA letter of interpretation that was requested by AOPA: *"If the*

"The Skyhawk is Coming"

No, we're not getting a new Skyhawk (at least not that I know of). But by now, everyone knows that we ARE getting an entirely new avionics package for 2SP. The plane goes in for its annual and avionics installation on February 28th, and it will likely take a month or more.

When it's done, the panel should look much like 58H - a modern, state-of-the-art platform, which will be a boon to all our members - both VFR and IFR. No more sticking needles, and no more sketchy vacuum system.

Just like we did with the Skylane, prior to the rollout, we will have a Skyhawk-specific presentation covering the new system. For those who can't make it to the meeting, this will be available online, as will all the manuals and training materials.

Upgrading 58H was a huge leap forward for Blue Sky and continuing in the direction of avionics commonality is the right thing to do. It will make switching planes easier and should improve our safety margins in the process.

Iceman...*composite information indicates to a reasonable and prudent pilot that he or she will encounter visible moisture at freezing or near- freezing temperatures and that ice will adhere to the aircraft along the proposed route and altitude of flight, then known icing conditions likely exist."* That doesn't seem to help much since we all try to be reasonable and prudent and how are you supposed to know that "the ice will adhere"? Well, one excellent way is to look for recent PIREPs. There was a day when that was considered the only definitive proof but the authorities have adopted a more cautions approach now.

There is plenty of excellent guidance offered by the FAA. **This AC** is seven years old but ice doesn't change much.

A reasonable and prudent pilot would mitigate the risk of flying in icing conditions. Lots of good tools out there but none are definitive. Flying is half art half science. Aside from the PIREPs, take a look at the Current Icing Product (CIP) and the Forecast Icing Product (FIP) - a graphical view of probability and severity that incorporates temperature,

Iceman...humidity, water content and drop size. METARs, TAFs, MOS, radar, and satellite all have valuable information too. All of this stuff is available wherever you shop for weather: Foreflight, 1800wxbrief, AWC etc.

A reasonable and prudent pilot would mitigate the risk of ice buildup. A good way to do that would be to use a personal minimum with a ceiling high enough such that you could descend out of ice-producing clouds into non-icy VMC. More prudent behavior would include using pitot heat *anytime* you have visible moisture and temperature below 5ºC (41ºF). Carburetor heat and alternate air sources may help if you do encounter ice. More prudent behavior would be to notify ATC *immediately* upon noticing *any* airframe icing - even if it's trace icing that doesn't require an escape (yet). This way you have effectively put them on notice that you may need an altitude change soon. ATC knows that you can't tolerate any significant ice buildup and they will work with you. If you want to climb, make sure that you know the tops and whether or not there's an inversion with warmer air.

And never be afraid to use your PIC authority to deviate from any regulation to the extent required to meet the emergency.

Know Your Runway Conditions Winter flying offers a whole set of different concerns than those of the summer.

If you're flying to a towered airport, you have access to far better runway condition information. Landing on a "contaminated" runway at a non-towered airport may require a great deal of investigation and discretion. Judging a runway's condition during a flyover at 70 KTS is near impossible, so you'll need a trusted source on the ground at the airport. But some non-towered airport operators do submit runway condition NOTAMs. Regardless, they should be available in your EFB.

As the result of a Southwest Airlines runway overrun in 2005, the FAA decided to standardize runway condition reporting. Never known for nimbleness, in 2016 the changes were implemented. The result: RCAM. Runway Condition Assessment Matrix. And FICON NOTAMs (Field Condition). These were formerly known as SNOTAMS. RCAM replaces subjective judgements of runway conditions with objective assessments based on the contaminants.

The airport operator assesses the runway surface in three equal sections - the first 1/3rd, second 1/3rd, and last - assigning a number (from the matrix) to each section. The number is the RwyCC or Runway Condition Code. By looking at the RCAM, you can determine what the braking conditions should be on landing (or takeoff, for that matter). They vary from "Good" all the way down to "Nil". But if a runway has nil braking, it should be closed.

So, where do you get this juicy information? As they say: "Know before you go." FICON NOTAMs can be updated frequently in changing conditions but you may be able to read one in advance. ATC should also be able to tell you, as should FSS. No matter how you get the information, you'll need to know what the numbers mean. The RCAM is published in table format in the AIM - "Airport Operations" section: (Fig 4-3-7). Poking around, I found a recent sample: "DKK RWY 24 FICON 3/3/3 THIN DRY SN OVER PATCHY COMPACTED SN OBSERVED AT …" The 3/3/3 indicates medium braking on each 1/3rd of the runway.

Blue Sky Winter Ops *Some Winter Operation DOs and DON'Ts from our Operating Instructions*

1. Preheat the engine. If the engine is cold and the temperature has been below 32 degrees F in the two hours prior to the flight, the engine must be preheated.

2. The solar chargers should always be plugged back in the preheater battery, when no longer in use to ensure the battery is fully charged for the use by the next pilot.

3. Check for water, snow and ice accumulating in the tail cone and spinner. Small amount of ice in the spinner can cause serious vibration stress on the plane and will damage the constant cpeed props.

4. Always leave one of the prop blades pointing to the ground to facilitate water drainage from the spinner.

5. Do not use hard scrapers to remove snow or ice from any part of the planes. A soft broom or soft brush should be used to remove powdered or wet snow. (A broom labeled "aircraft only" is hanging in the shed)

6. Do not pound on the skin of the plane to break the ice. It can cause dents and paint damage.

7. Use automobile windshield washer solution to help remove frost from the airframe and control surfaces but do NOT use the same fluid on the windows.

8. Fill up the fuel tanks at the end of your flight to minimize condensation/frozen water in the tanks.

9. Aircraft batteries should not be run down in attempting to start the plane. Do not crank the engine for longer than 10 seconds with 30 seconds wait time between each attempt.

10. Be careful when taxing on the ground. Low wing aircraft are particularly susceptible to wing damage from snow and ice accumulated on the sides of the taxiways.

11. Do not taxi on the ground unless you have confirmed that it is solid i.e. dry or frozen.

Welcome! Blue Sky welcomes new member Fang Luo of Piscataway.

Fang is a PhD student at Rutgers. He did his private pilot and instrument training at Central Jersey Airport, and loves flying in this area.

NEWS YOU CAN USE

Next Membership Meeting

Monday, February 6, 7:30 p.m.
Calvary Baptist Church

Safety Presentation: **Checklists: *Evolution, Types, & Usage***
Roger Harris

Fuel Prices (ranked in order of price)

(It helps your club when you buy it cheap!)

Central Jersey	$5.25
Sky Manor	$5.46
Solberg	$6.04. (Must use the Phillips card)

"Danger is relative, and inexperience can be a magnifying glass." Charles Lindbergh

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