

JETSTREAMS

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This month's edition of JetStreams is chalked full of excellent articles. Terry Lankford's article on airspace especially the airspace after hours at both Class D and Class C airports is a good read for Student pilots and experienced pilots alike. I also really enjoyed Jim Jellison's article on the Wing's restaurant at Auburn field, it is probably my favorite place to go for the \$100 chicken salad sandwich. We are also fortunate to have Phil Blank submit an article on instrument approaches. Phil has been published in Aviation Safety Magazine and is an ex airline pilot with his CFI. I hope you enjoy these articles as much as I do!

I have had a lot of requests for another Mountain Flying Seminar and while it is not on the list of upcoming events I am working on putting one together for this summer and will send out the information in a separate email. In the meantime...

Safe Flying!

~Lysa Wollard

May Achievements

Derek Kennedy

Solo

Rob Goldman

Chris Bogan

Private

Adam Jessup

Kris Kasenchak

Private

Bill Komanetsky

John Shilling

Private

James Hubbard

Katherine Ramos

Instrument

Bill Komanetsky

Stan Miller

MultiEngine Commercial

Dave Gregory

Thomas An

MultiEngine Commercial

Ivan Szeto

Derek Sellers

CFI

Adam Jessup

**CFI OF THE MONTH
JAMES HUBBARD**

Private Pilot Ground School

We are pleased to announce it's Summer Private Pilot Ground School The course will begin on Tuesday, June 20th and be held every Tuesday and Thursday from 6:30 PM to 9:30 PM for 8 weeks.

Fred Abrams is returning to teach the class and brings with him 30 years of flight and ground instruction experience. He will thoroughly prepare the class for the Private Pilot written and oral exams. The Jeppesen private pilot manual is the main text book for the course however Fred will also cover weather, cross country planning and the FAR/AIM.

The cost of the class is \$300 plus books. Please call the front desk or logon to schedulepointe.com to register.

Ahart Summer Events

So far this summer we have quite a line up of events taking place. We will notify you as safety seminars and ground schools are added.

- IFR Ground School begins June 5th
- Pvt Ground School begins June 20th
- Fred Abrams Accelerated Commercial 3 day ground school July 14th, 15th, 16th
- High Altitude Course July 8th
- Wings Seminar—Cockpit Resource Management—possible date of June 15th

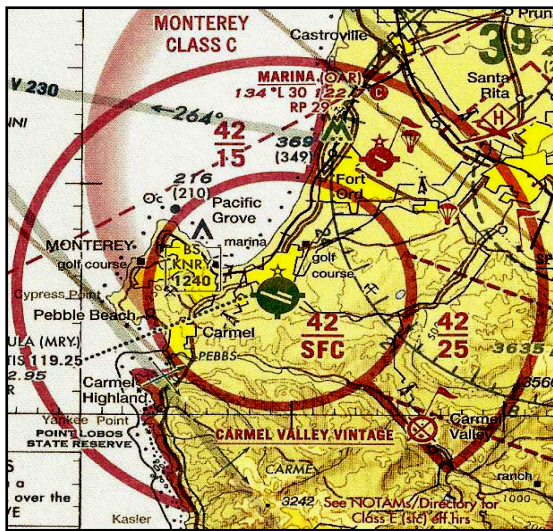
A course description and time information will be available on [Schedulepointe](http://Schedulepointe.com) for each event.

Airspace Metamorphosis

By Terry Lankford

Pilots should be aware that surface based airspace (Class C, D, and E) may only be effective part-time. In such cases charts refer the user to NOTAMs or the *Airport/Facility Directory*. Some *Directory* entries are specific, others ambiguous.

Let's start with the Monterey Class C airspace. The chart refers pilots to "NOTAMs/Directory for Class C (sfc) eff hrs." The *Directory* states: "...CLASS G, CLASS E 700 AGL and abv..." Well that's pretty straight forward.



What about Moffett's Class D? The *Directory* says, "other times CLASS E." Here again, straight forward; when the tower's closed the surface airspace reverts to Class E surface area.

Now for Livermore. The *Directory* says, "other times CLASS G." OK, Class G at the surface, but where does Class E begin—700 AGL, 1200 AGL, 2900 MSL?

A review of the AIM paragraph **3-2-5 Class D Airspace**, **EXAMPLE- 2**. (second sentence) "*During the hours the tower is not in operation, the Class E surface area rules or a combination of Class E rules to 700 feet above ground level and Class G rules to the surface will become applicable.*"

So, for Livermore, and other airports with this notation, "...other times CLASS G." Class E airspace begins at 700 AGL.

Oh, and what about Merced's Class E? The *Directory* again says, "...other times CLASS G." The AIM contains no guidance on the base of Class E when surface based Class E goes away. Well, if we flight plan based on Class E beginning at 700 AGL during the hours when Merced's surface based Class E is not effective, we can't go wrong.

We all know that the AIM provides *advisory*, not *regulatory* information. This information is not contained in 14 CFR 71 Designation of Airspace... or FAA Order 7400.9 Airspace Designations.... But, undoubtedly it's in some preface, preamble, or note to some obscure FAA regulation or order.

One thing for sure: The FAA is consistently, inconsistent!

The Flying Gourmet

By Jim Jellison

Years ago an old pilot that I knew would say " It is better to be on the ground wishing you were in the air, than in the air wishing you were on the ground". She would often say this when I would complain about the weather that was interfering with my desire to fly. This year's Spring weather has provided plenty of iffy days for flying, at least the type of flying I do. One recent morning seemed to present a pretty solid chance for a good flight so off I went. Shortly after takeoff I was presented with the decision to fly under the cumulus cloud layer or over it. Since I was alone, flying a 172 SP, and the temperature was cool I decided the latter. I was able to maintain a 1,200 foot per minute rate of climb while indicating 70 knots of air speed and soon I was at 3,500 feet and clearing the first of many clouds. My heading was easterly so I continued my climb to 5,500 where I enjoyed a perfectly smooth ride. The AWOS at my destination was reporting clouds at two levels so I decided rather than take a chance at getting stuck "on top" when I found a large hole I would begin my decent. About 15 nm from my destination I spiraled down to 2,500 and proceeded to land to enjoy a late breakfast.

Auburn Airport (AUN) is about 25 nautical miles northeast of Sacramento and has a great little restaurant called the Wings Grill. They are open from 7 am to 2 pm daily and serve a wonderful breakfast or lunch. They also feature an espresso bar so you coffee drinkers can get a jolt to keep you going. Wings is right on the field, and I mean right on the field, as there are aircraft parked nearly in the patio area. It's popular and on any given day a Highway Patrol aircraft and a military chopper may also be sharing the parking spots. If you are flying in for lunch do get there early. And yes, I want to confirm for the Ahart Dispatcher who asked, the waitresses are young and pretty!

On the way back I decided to fly under the cumulous clouds and proved once again to myself that flying through the rising moist air between the ground and those clouds is a bumpy place to be. Funny how the scattered cloud layer that began at 3,100 and extended up to 5,000 stopped, and how the air above seemed totally unaffected by the instability below. I will forever be a student of not only aviation but of the weather. We pilots know they are inseparable.

You can make a difference! One pilot's experience in actually creating change in the system

By Phil Blank

On the surface of things, ILS approaches are always a welcome site for a pilot after a long day of IFR. They provide the warm glow of having both vertical and horizontal guidance and with 1000 foot ceilings, shooting an ILS is a nice and relatively easy task.

However, some ILS' are not quite what they seem to be. This is the story of one of them. Jim had just taken his instrument checkride and the examiner had him execute the ILS Runway 2 approach into Sacramento Executive. As part of the checkride, Jim received the following instruction from the examiner, "Proceed direct to Sacramento VOR and hold as published". Jim executed the instruction and held entering the holding pattern the way he thought it was depicted on the chart. The examiner agreed that Jim executed the correct entry. Ultimately, Jim got the 'you are cleared for the approach' from the examiner and continued to a successful conclusion of his instrument checkride.

The next morning, in the pilot's lounge, Jim, the now seasoned instrument pilot was telling story of the triumph of his checkride. After a few minutes, one of the older instructors looked at him quizzically and said "Jim, how exactly did you hold at the VOR when there is no holding pattern depicted there?" The room fell silent as many of the pilots in the room trained in the Sacramento area and were convinced that there was a holding pattern at the VOR. Thus began a very detailed examination of what turned out to be a surprisingly odd approach.

"If you are north of the approach and are cleared to the VOR to hold, there is no 'hold as published'" said Mike the grizzled veteran of days that go back to radio ranges. Sure, you can hold at the VOR but you better ask ATC for some holding instructions 'cause there sure ain't any on this approach". A really close examination of the approach showed that the hold is at the LOM and not at the VOR as almost everyone in the room had assumed.

"But what about the missed approach" said Mark a mid-time flight instructor. It says that you can fly to the 'SAC VORTAC or Execc LOM and hold'. Doesn't that indicate that you can hold at the VOR?" Mike leaned back in his chair and with a knowledgeable grin asked..."sure, its pretty clear to me that the hold at the LOM is as depicted but, you know, there is no hold at the VOR so what holding pattern would you use?" This really started an argument amongst the flight instructors. NACO charts and Jeppesen charts were flying around the room. No one had a really good answer to Mike's simple question. Everyone's brains were starting to hurt as they began to realize that the approach that they thought they knew so well was perhaps not that well known.

"Why don't we get the 8260 from the FAA and see what that says" Mike offered. "What the heck is an 8260?" asked one of the more junior instructors. "The 8260 is the official FAA guidance for all instrument procedures. It is really a TERPS form and there is one of these for each instrument approach in the U.S. There are even 8260's for intersections. If you really want to understand how an approach is constructed, look at the 8260. In fact, you may not realize that Jeppesen constructs its charts based on the information contained in the 8260 form. NACO charts are produced the same way. So when there is a question about what is on the approach plate, the real answer is to be found in the 8260."

At this point, Jim, our newly minted instrument pilot was beginning to feel like he really wasn't much of an instrument pilot after all. He realized that he had a lot to learn about instrument flying and he was questioning his own ability to even read the charts correctly. "But the examiner had me fly it", he offered weakly. Mike just glared at him and Jim realized that he was on shaky ground. He volunteered to get a copy of the 8260 and to start calling around to see if he could learn more about the approach that he thought he knew so well.

Jim closely examined the approach and noticed another odd thing. COUPS intersection, the initial approach fix, caught his eye. The

course from COUPS to the LOM was the 015 degree bearing but the inbound course of the localizer was 016. Jim knew that he was not really capable of flying to that degree of accuracy but why the difference? Why wouldn't the COUPS intersection have the same inbound course as the localizer. The depiction on the NACO charts seems to 'imply' that COUPS was on the localizer, after all, the fantail had COUPS right in the middle of it.

Jim suddenly realized that the definition of COUPS appeared to be to the LOM and not part of the localizer...but yet, this approach does not require an ADF. He had himself flown COUPS tracking the localizer so he knew that it 'worked'. But if you couldn't use the localizer, how in the world do you navigate from COUPS to the LOM without an ADF? It was definitely time to call the FSDO.

The next day, Jim called the Oakland FSDO. He got the operations inspector on the phone who was extremely helpful but really did not know the answers. He did not know why the approach was depicted the way it was and why an ADF was not required. He referred our intrepid explorer to the Flight Inspection office in Sacramento. The flight inspection office in Sacramento did not know the answers either BUT they did have a copy of this magical 8260 which they offered to fax to Jim. Jim thought that with the 8260, he might be able to make sense out of an approach that he thought he knew so well.

Sure enough the 8260 was very clear. To fly from COUPS to the LOM, an ADF was technically required. A call back to the Flight Inspection office helped clarify another important piece of data. On the missed approach section of the 8260, there is a section labeled 'Additional Flight Data'. Guess what, in that section was the key for holding at the VOR on the miss. It gave the information that is not depicted on the chart which is 'Hold S, RT, 016 inbound.". Jim felt like he had struck pay dirt and would soon be able to really explain this approach to Mike.

There was one more step to take to resolve the final question on this approach. What about the ADF? After several calls, Jim found himself on the phone with the Approach Standards Office in Oklahoma City. After explaining his questions, the office agreed with Jim. An ADF is required for this approach and it should have been specified all along. They had no idea why the approach did not carry this label. Interestingly enough, the 8260 was created in 1983. No one since that time had thought to really take a close look at this approach or even question its construction.

The next weekend, Jim proudly entered the pilots lounge and displayed his new found knowledge. Jim brought with him the 8260 as well as the details about how the approach was constructed and the information about COUPS intersection. He even was able to explain that the route from the SAC VOR to the LOM was actually a terminal route. A poorly constructed one, no doubt, but there just the same. Clearly now, Jim was the master of this particular approach rather than the other way around.

Jim also had with him the copy of the NOTAM that had been issued which now requires an ADF for the ILS. Some of the pilots moaned "What, I need an ADF to shoot this approach, that is crazy, I have been doing it for years without one," protested one flight instructor. Jim simply said, "well, maybe, but it isn't right". At that moment, the pilots had a new found respect for Jim and his knowledge and understanding of how the system works and what it takes to change it.

For the first time since the beginning of this story Mike smiled. He simply said, "Nice job...never assume anything about an approach based on what everyone else does or says...even an examiner. Examine each approach carefully and fully. Question everything and anything. Take nothing for granted. That is the first step towards a long and successful career as an instrument pilot. Now, let me explain how radio ranges work...."