

Avinger Field, Vance, SC to Charleston, SC

A maintenance problem last night forced an unscheduled landing at Avinger Field in Vance, South Carolina, SC87. It was quickly repaired this morning and we can continue our flight to Charleston, SC, KCHS, our original destination. But the weather has turned sour so an IFR flight to Charleston is in order with an ILS approach to Runway 15. Click on the image in the main text to download the flight-information package, sc87-kchs.zip. The zip-file includes the approach plate for ILS Rwy 15 at Charleston, and this text description of the flight (No IFR Chart).

This flight will introduce you to the "Might is Right" rule.

You fly this ILS approach into Charleston Int'l, intermingled with the big iron and their 160 kts approach speed, over twice that of your Nav Trainer. The controller has asked you to maintain 110 kts. until glide slope intercept at the Outer Marker, a routine type of request at many very-busy airports. You're not obligated to comply, but if you don't the controller may ask you to do a "right 360 for spacing, and to report over Atlanta for additional advisories before returning to the final approach course."

You see, the jet jockeys can get a little testy when asked to line up over St. Louis for their turn inbound behind you while you lollygog in at 75 kts. from 20+ NM out.

As usual, do nothing until you have gone through the step-by-step details of the flight with this text and your charts. Only by doing this will you both understand the purpose of each step, but you will visualize them in your mind, a critical part of instrument flight.

- Set the flight simulator weather conditions to 400 ft overcast, cloud tops at 10,000 ft., and one-mile visibility. The wind is calm.
- Move the aircraft to Avinger Field's Runway 13, airport SC87.
- Tune the Nav-1 receiver to the Charleston ILS, 109.7 MHz, ident I-CHS.
- Set the VOR-1 OBS to 153° as a reminder of the runway heading.
- Tune the Nav-2 receiver to the Charleston VOR, 113.5 MHz, Ident CHS.
- Set the VOR-2 OBS to 153°.
- Switch the DME to Nav-2.
- Turn on your MKR BCN Receiver (Switch is next to the OMI Lights).
- Turn on Nav-1 Ident, and leave it on, to recognize when that VOR becomes "active."
- Fly Nav-2. Takeoff from Runway 13 with a right turn-out to 145°.
- ATC has cleared you to 4000 ft.
- When the VOR-2 needle becomes alive, somewhere under 1500 ft MSL, intercept the 153° radial to CHS VOR.

- When VOR-1 becomes active, about 27 DME from the CHS VOR, intercept the localizer and fly the rest of the way with Nav-1.
- At DME 23 descend to 3100 ft. Maintain 110 kts.
- At DME 14 descend to 1600 ft. Maintain 110 kts.
- When you reach the Outer Marker, descend on the Glide Slope. Lower one notch of flaps and slow to 75 kts.
- Your DH is 243 ft., at the MM. Do not descend below 243 ft unless Charleston's Rwy 15 is in sight.
- Charleston's Runway 15 TDZE, Touch Down Zone Elevation, is 43 ft, 200 ft. below you at the DH. It should be an easy coast in from there if you've stayed on top of the needles.
- Flight time: About 23 minutes.