

# HEADSET BUYERS GUIDE



## In Part 2 of our series, we'll consider passive noise reduction headsets in the \$200-plus price range.

BY CORY EMBERSON

In the first installment of our headset series (see the June 2006 issue), we reviewed passive noise reduction headsets in the \$200-or-less price range. This time around, we tested headsets from four different manufacturers in the higher end of the PNR scale—those units that retail for *more* than \$200. (We have, however, given you street prices at the end of the story, which are more representative of what you can expect to pay than retail prices alone.) Think of this category as an

intermediate step on the way to active noise canceling headsets; a midterm phase where the quality is better and features more abundant. Or should be.

And, again, because there are just too many headsets to try them all on for size, we rounded up the essential specs for the non-tested units in this category and present them on Page 44. You'll notice that some of the manufacturers featured in Part 1 don't offer higher-end PNR headsets.

Before we dive in, a quick review of the noise reduction rating (NRR) cited by each manufacturer: The effectiveness of a headset in reducing noise is measured in decibels (dB) and is known as *attenuation*. Basically, the NRR is equivalent to the difference in noise level before the noise reducer (in this case, the headset) is applied. For the test flight, our cockpit dB level was 92; a headset with a 23-dB NRR rating should have brought the noise level down to a more tolerable 69 dB.



David Clark H10-13S

## Flying the Headsets

Part 2 of the headset test took us on a roundtrip to Harris Ranch (California) on a warm spring day, perfect for testing their comfort in 80°+ weather. With fellow Contributing Editor Rick Lindstrom in the left seat of his Tiger, we had ample opportunity to evaluate these headsets—it was a busy day on the air waves.

Surprisingly, a feature common to most of the economy headsets was absent on all of the tested over-\$200 units: gold-plating on the comm plugs, which can provide better signal transfer and resistance to corrosion. Overall, though, this was a consistently good field of headsets—each set had a quirk or two. And, of course, audio quality is a subjective matter, and I must note my preference for a brighter sound through the earphones.



## David Clark

OK, full disclosure: I had not worn a David Clark headset in about 11 years. In those days, my head did not get along with the particular set—I suffered hot spots on top and pinched ears. So I admit I had some trepidation about flying this stereo pair, the H10-13S. But...I was proved wrong immediately. This headset was extremely comfortable, and it was obvious that the company worked successfully on eliminating the old (and now thoroughly out of date) “David Clamp” reputation.

The H10-13S had a number of features that I liked. The individually adjustable volume controls are located on each ear cup, and the pots feature clear detent positions. The flex mic boom has a 200° range forward and back and is set-and-forget—once you choose a mic position, it stays there. That’s a nice touch when you’d rather pay attention to ATC’s calls than monkey with the mic position. The ability to adjust the headset band while on your head is another plus. It can be irritating to put a new headset on, only to remove it several times to get the feel just right. (Admittedly, this is less an issue for the end user, as opposed to the testing staff, but worth noting for headsets that are used by many different passengers.)

The sound through the earphones was very clear; NRR for the set is 23 dB. The gel ear seals were generous and thick and provided a flawless seal. And overall, the headset kept the loud out capably. Weighing 17 ounces, the H10-13S isn’t the lightest headset we tested, but it’s so well balanced that there were no hot or heavy spots on my head. The headband is cushioned by a thick cloth-wrapped foam insert, and the chrome headband was well-designed to keep the metallic pieces from tangling my hair.

The ear cups have changed from the old shiny mint green to a matte finish—less chance of blinding your cockpit-mate when the sun is low. The headset also has a matching green clip to connect the comm cord to your shirt or seat belt. It’s a small thing, but it’s something I appreciate in keeping cord clutter to a minimum.

I had two minor nits with this headset. The recessed stereo/mono switch, located on the comm cord, was

difficult to switch with my (smallish) finger. I had to use a pen point to move the tiny switch, and it would have been darn near impossible in anything but smooth air. Also, when taking the headset out of the box, the cardboard inset that held it was very difficult to remove—I actually detached one of the gel ear seals while taking the headset out of the packaging, and it wasn't that easy to replace. (OK, I asked for help from the nearest flight instructor.)

But those are minor points, and overall, this model was a top performer. David Clark provides a five-year guarantee on the headset. Oh, and there are four other model families in this category: the H10-20, H10-30, H10-60 and H20-10, with variations in stereo or mono audio, and straight or curled cords. More information on the untested headsets can be seen in the chart on Page 46.

### Peltor Aviation

When we requested a sample headset from Peltor Aviation, the Headset Fairy surprised us with the company's new Nordica Pro, not yet released at press time. The price will be around \$250, according to Don Peyton, the company's district sales manager.

Weighing in at 12.3 ounces and with an anticipated NRR of 25-26 dB, this bright yellow-and-black headset was extremely comfortable, with a close but not claustrophobic ear seal. The flexible boom is stable, and the mic is easy to set in position, where it stays perfectly. The audio qualities of the mic were excellent, and it wasn't necessary to keep it right up against your lips for good audio pickup. The mic can be twisted for optimal positioning, a real plus.

The audio in the earpieces, however, was hollow and colored, in our view. The frequency response seemed to be optimized for the mid-range, but there



Peltor Nordica Pro

AvComm AC-900

## There's More!



Aside from the four headsets we flew, there are a handful of other manufacturers that offer PNR headsets in the \$200-and-up price range (though the options are more limited than in the economy category). Some of the manufacturers we covered in that first group don't have any offerings in this midrange, jumping instead into the ANR product set. Here's a quick look at what we found:

**AvComm.** The AC-747 (\$265) converts quickly from GA to helicopter use by replacing the straight GA cord with a coiled helicopter cord; a coiled GA cord is also included with the headset. Weighing 13.4 ounces and certified with a 24-dB NRR, this headset also features a push-to-talk switch on the ear cup dome and a flex mic boom. Both AvComm offerings keep the headset

weight down with high-efficiency neodymium speakers, and each ear cup has an independent volume control. Each speaker contains a two-pin connector, which allows you to change to 32-ohm speakers, an advantage for pilots who require more volume. The plugs are gold-plated, and copper wiring with spiral shielding eliminates RF interference.

The AC-900 (\$236) weighs in at 13.6 ounces and carries a 23-dB noise reduction rating. Like the AC-747, it has a mono/stereo switch built into the cord, independent volume controls and a backup push-to-talk switch on the ear cup dome. The AC-900 features a gold-plated mic and headphone plugs, gel and foam ear seals and cotton ear covers. Both headsets are covered by a five-year factory warranty.



Sennheiser HME 110

**Sennheiser USA.** Sennheiser has two entries in this category, both weighing 12.4 ounces with a 24-dB NRR. The HME 100 (\$299) has a flex mic boom, is switchable between mono and stereo and is available by special order only (which takes six to eight weeks). It's a legacy headset that is still available because it is TSO'd and covered by a five-year warranty. The HME 110 (\$281) is the upgraded version of the HME100, with an improved foldable headband pad and ear seals. It switches between stereo and mono, has a sensitivity control for the mic and volume controls for the headphones. The HME 110 is covered by a 10-year warranty.

**SoftComm Products.** SoftComm's sole entry in this category is the C-10 Chancellor (\$215), a switchable headset weighing 15.1 ounces with a 24-dB NRR. The C-10 features a non-reflective black metal frame, a push-to-talk switch on the dome and gold-plated comm plugs. Both gel and foam ear seals are included, as well as cloth ear covers and a six-pillow foam head pad. The set features low-profile dual volume controls and a built-in stereo/mono switch. A five-year warranty is included.

—C. E.



SoftComm C-10 Chancellor



Sigtronics S-68

wasn't much nuance and texture while listening to ATC. This was a problem when returning to the airport—it was difficult to discern whether the current ATIS was Kilo or Lima, and I would have appreciated more crispness. As we've mentioned, however, audio quality is a subjective matter, so your mileage will vary. I just prefer a brighter, more natural tone.

The placement of both the stereo/mono switch and the volume control on a single ear cup was well-designed, leaving the audio adjustment to a single hand. Trying to remember which control is where can lead to some unsightly in-cockpit flailing. There were no sharp components to scratch the cockpit windows, and the headband adjusted easily, with no painful hot spots on the head. Peltor offers a five-year warranty.

### Sigtronics

The Sigtronics S-68 weighed in at a mere 11.9 ounces. Interestingly, the headband hardware is gold titanium-plated, but the mono plugs are standard chrome. Gold-plating on the jacks would have been a better choice for this level of headsets, in our view. The audio was fairly clear, but wasn't as sensitive as I would have liked. The mic sounded a little muffled, leaning toward the low end of the frequency response range.

The gel ear cups provided a comfortable seal and 24 dB of noise reduction. The real star, though, was the air pillow headband pad, very similar to the waffle seats available for aircraft, motorcycle and medical uses. It was extremely comfortable, and the flex mic boom was well-made, staying put wherever it was positioned. The ear cups are a snappy black, and while the test set was mono, a stereo version is also available. A five-year warranty is available on this manufacturer's headsets.

### Telex Communications

The Telex Echelon 25XT is a generously built, substantial headset that was surprisingly light and well-balanced on the head. A utilitarian gray, the 13.6-ounce Echelon featured a replaceable thick foam headband pad that extended all the way down to the headband adjusters. The headset size can be adjusted with ear cup sliders that move up or down on the headband. There are three pressure settings for the headband as well, and the knobs can be adjusted before wearing. The replaceable earpiece cushions are made of heat-sensitive, slow-recovery foam and were very generously sized. The seal on the ear cups was just right, and the 25-dB NRR kept the cockpit noise out without much effort; they were exceptionally comfortable.

The ear cups had individual volume adjustment knobs, a nice feature for people who may need a little extra volume boost in one ear. The 25XT features a cell phone/MP3 adapter on the cord

Telex Echelon 25XT



#### Contact Information

AvComm International

800/845-7541

David Clark

800/298-6235

Peltor Aviation

800/444-4774

Sennheiser USA

860/434-9190

Sigtronics

909/305-9399

SoftComm Products

800/342-4756

Telex

800/218-2410

*Direct links to these companies' web sites can be found at [www.kitplanes.com](http://www.kitplanes.com).*

**Q: If brokers say they cover the entire market, why can't they get a quote from us?**

**A: Hmmm...**

The fact is brokers can't get you a quote from Avemco. As the only direct provider of aviation insurance, Avemco has eliminated the middleman. Which means you talk directly to an aviation underwriter for fast, accurate answers in one easy phone call. So if a broker tells you he covers the whole market, he's only telling you half the story.

**Aviation insurance direct from the source.**



**Call 888-241-7890 for an immediate quote.**

**Or visit [www.avemco.com](http://www.avemco.com) for more information.**

**And experience all the benefits of dealing direct.**

A SUBSIDIARY OF HCC INSURANCE HOLDINGS, INC.

that allows both devices to be attached at the same time. The mute button on the adapter allows you to transmit without much effort. The headset also features a stereo/mono select switch on the Y-cord, as well as a small clothing clip.

The audio quality in the earpieces was clear and natural with good fidelity for both voice and music. When the comm radios come alive, the music attenuates quickly and to an appropriately modest level. The flex boom was another winner, staying where you put it, and able to switch from a left to right orientation. The mic came with a foam muff already attached, a nice touch, and the mic's audio quality was quite good.

The 25XT has a few unique features. A plus is the cloth-covered foam block that separates the gel ear cushions during shipping and keeps them from sticking together. The cord is extremely long...

## The Author's Picks

This time around, we had some good picks, but if I had to choose one of these headsets for a long cross-country, I'd go with the David Clark H10-13S. The audio quality—transmitting and receiving—was excellent, and the headband/ear cup combination was well-balanced and comfortable. At \$292 (average street price), the set falls in the upper range of this headset class, but the relative lack of quirks and irritants—plus DC's legendary customer support—makes it a desirable.

—C. E.

long enough to sit in the back seat and still be comfortably connected to the comm panel. Overall, the 25XT was well-made and quite substantial, with exceptional audio quality. Telex offers a five-year warranty on this headset.

### Wrapping Up

The highest price points of these headsets generally provide for greater comfort than you'll find in the economy range. There was some variability in the audio quality, however, so if you don't care for the sound or feel of a headset, be sure the manufacturer has a trial period and warranty you can live with.

Next time around, we'll evaluate the big dog in the headset yard, the active noise reduction (ANR) sets, and after that, the featherweight in-the-ear headsets. †

Company	Model	Price *	Weight, ounces	NR, dB	Stereo/Mono	Mic Boom	Warranty, years	Return Policy	
AvComm International	AC-747	\$199	13.4	24	Switchable	Flex boom	5	Dealer/distributor exchange	
	AC-900	\$179	13.6	23	Switchable	Flex boom	5	Dealer/distributor exchange	
David Clark	H10-13.4	\$292	17.0	23	Mono	Flex boom	5	Dealer/distributor exchange	
	H10-13S	\$297	17.0	23	Stereo	Flex boom	5	Dealer/distributor exchange	
	H10-30	\$242	19.0	24	Mono	Articulating reversible	5	Dealer/distributor exchange	
	H10-60 (straight)	\$329	22.0	22	Mono	Articulating reversible	5	Dealer/distributor exchange	
	H10-60C (coiled)	\$340	22.0	22	Mono	Articulating reversible	5	Dealer/distributor exchange	
	H20-10	\$325	19.0	22	Mono	Flex boom	5	Dealer/distributor exchange	
Peltor Aviation	H20-10S	\$325	19.0	22	Switchable	Flex boom	5	Dealer/distributor exchange	
	Nordica Sport	\$160	9.8	23	Switchable	Flex boom	5	Dealer/distributor exchange	
	Nordica Pro	\$250**	12.3	25-26	Switchable	Flex boom	5	Dealer/distributor exchange	
	7000 Pro GT	\$245	12.8	25	Switchable	Flex boom	Lifetime	Dealer/distributor exchange	
Sennheiser USA	7000 Sport LE	\$209	12.0	24	Switchable	Flex boom	Lifetime	Dealer/distributor exchange	
	HME 100***	\$239	12.4	24	Switchable	Flex boom	5	Dealer/distributor exchange	
	HME 110	\$222	12.4	24	Switchable	Flex boom	10	Dealer/distributor exchange	
	Sigtronics	S-8	\$259	16.0	24	Mono	Flex boom	5	Dealer/distributor exchange
		S-58	\$237	12.0	24	Mono	Flex boom	5	Dealer/distributor exchange
S-58S		\$267	12.0	24	Stereo	Flex boom	5	Dealer/distributor exchange	
SoftComm Products	S-68	\$252	11.9	25	Mono	Flex boom	5	Dealer/distributor exchange	
	S-68S	\$272	12.0	25	Stereo	Flex boom	5	Dealer/distributor exchange	
	C-10 Chancellor	\$175	15.1	24	Switchable	Flex boom	5	Returns within warranty period	
Telex	Air 3100	\$205	14.2	21	Mono	Flex boom	5	Dealer/distributor exchange	
	Air 3500	\$256	13.6	25	Switchable	Flex boom	5	Dealer/distributor exchange	
	Echelon 25XT	\$303	13.6	25	Switchable	Flex boom	5	Dealer/distributor exchange	

\* Average street price from three sources as of June 2006. Retail prices may be higher. \*\* Not available for sale at press time, no street prices. \*\*\*Special order, 6-8 weeks delivery time.