



OUTSTANDING AV

Onboard audio visual entertainment systems continue to advance exponentially. As technology has evolved, extraordinary components – which not long ago were so expensive that their use was limited to only the most elite builds – have now become industry standards. When it comes to remarkable and innovative AV for substantial yachts like **Meduse** and **Mr. Terrible**, Steve Segall of AV Concepts and Design in Redmond, Washington, is a name that has become synonymous with laudable onboard entertainment. **Kelly Sanford** recently took the opportunity to speak with Segall and learn what it takes to design and assemble the ultimate entertainment system for your yacht.



Kaleidescape
Touchpanel

Segall predicates his commentary in saying, “Superior AV entertainment requires a certain level of commitment.” Though many innovative achievements can happen when thinking outside the box, marine innovations actually occur within the confines of the box (or boat, as the case may be).

“When you want a truly exceptional audio-visual experience in a room,” says Segall, “the room itself becomes part of the system, so it is important that everyone is on the same page.” The system engineer will need to understand the unique demands of a yacht; the architect will have to take into account structural, electrical and even cooling demands for the media electronics, and the interior designer must be willing to yield some aesthetics to the demands of the display and audio devices.

Since Mars and Venus will not always see eye to eye when televisions and speakers begin to intrude upon the style/design of the room, Segall says, “Large yachts are skirting conflict by incorporating dedicated media rooms.” Historically, the saloon and skylounge have served double duty as both a lounge and media room, but as the size of the average yacht grows, the incorporation of “home theaters” has become a prevailing trend in large-yacht construction. Segall notes, “With a media room, there is a different expectation in interior design. You can close the door and don’t have to compromise.”

Whether you are revamping the skylounge on an existing



Arcam System

vessel or designing the quintessential media room for a new build, when anything goes, there are some truly outstanding options in yachting AV.

The Display

Selecting a television/display for a yacht is a process very different from selecting one for the home. Because your yacht is going to travel, the display requires compatibility with international transmission and color standards, specifically NTSC (National Television System Committee) and PAL (Phase Alternating Line). "If you just go to your local electronics superstore and choose a fancy television, you will be very disappointed when you travel abroad," says Segall. "Standard store-bought televisions are not compatible with overseas display standards, so when traveling, you will not enjoy quality reception. You'll get

black and white at best."

When flatscreen, plasma and HD technologies were new to the market, prices were significantly higher than they are now. Segall explains that high prices in the current market will not necessarily translate in performance quality, but rather styling expense, as tight competition is keeping established technology costs in check. "When I select a display," says Segall, "I am looking for one that is reliable, controllable and one that will perform in a yacht's unique environment – not just a decorative device. I look for equipment that is going to be trouble free."

Despite the fact that the price of the technology has dropped significantly, it frustrates a lot of owners when they realize the cost of supplemental devices has not. Segall says, "It is possible for the price of the lift that raises and lowers the television from the cabinet to cost more than the TV."

"When today's yacht owners want to go over the top," reveals Segall, "they go larger than life." A favorite at AV Concepts and Design is the 103in Panasonic TH-103PF9UK that retails for about \$70K and has a picture that has been described as "breathtaking." Segall continues, "You can't pop-in that screen in any room; it needs to be a pretty sizable space to handle a display that big, but it's an incredible piece of equipment."

The Sound (and the fury)

In order to achieve a movie-theater surround sound, the system must be 5.1 or better. The 5 being left, right and center front speakers; left and right rear speakers, and .1 is the subwoofer. For amps

and processors, Segall likes to use Arcam, a UK manufacturer that produces equipment with international-standard processing applications. These systems run about \$10K. However, Linn also makes a system with powered speakers that is compatible with yacht usage and retails for about \$20K. When prodded for the most expensive alternative, Segall points out that there are systems out there that run six-figures, "but they just aren't smart for a boat."

With amps and processors in place, it is time to talk speakers. "Well-built boats innately have really good acoustics," says Segall. The size and position of speakers you will use is a matter of personal preference. "Mr. Terrible was a lot of fun," recounts Segall, "because they came to me and said they wanted the system 'to play to 11.'" The decorator wasn't crazy about designing around 6ft-tall, 4in-deep speakers, but the owners wanted the sound system to be a priority." Segall installed ribbon speakers from B&G (which retail at about \$3.5K each) because of their system compatibility, relatively compact design and they will play loud and still sound clean. Segall also likes Linn's flagship, KOMRI freestanding floor speakers. "These are about the most over the top you can buy for a boat." At \$20K and 185lbs each, a room with 5 will run \$100K for speakers alone. (Amplifiers are extra!)

If a room will not handle the aesthetic challenges of large speakers, Segall likes Monitor Audio's ceiling speakers, but cautions that because of how sound travels, ceiling speakers really only work in very small spaces. "It is worth spending money to project sound, because sound is not experienced the same when projecting down." Segall likens it to putting retreads on a Ferrari, "It will get you there, but it will never perform like it should."

Most boats still allow for hard-copy media recordings. Unless an owner specifically requests them, cassette players and VCRs are things of the past. However, just about every other room on the boat will have an independent DVD/CD player. "Analog DVD has just about reached its maximum potential," says Segall, "but HD-DVD still has a lot of room for improvement." When designing the ultimate AV system for a new build, system engineers like to plan for the future. "However," adds Segall, "some of the new technology does not play nice in the sandbox. When everything needs to go in

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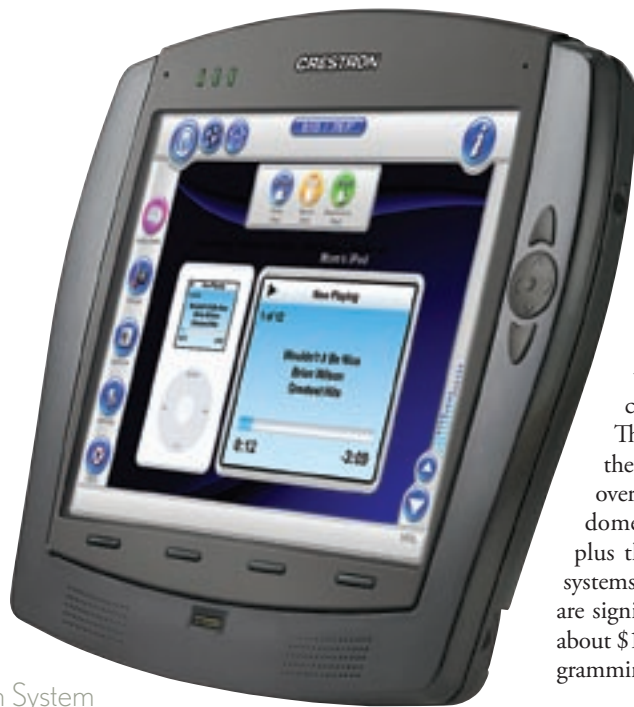
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Crestron System

and work right all the time, it is hard to incorporate new, unproven technology that might cause quirks in the system.” Segall uses the proven and reliable Arcam DVD/CD players that are wired into the Crestron system and compatible with international-display standards. These top-of-the-line devices retail for about \$3,500 each.

Digital media that is the wave of the future, and Kaleidescape, according to Segall, “is the holy grail of digital systems.” With a Kaleidescape system, all audio and visual media are digitally recorded in a master server that can be independently accessed from any room in the system, which means every room on the boat has autonomous and unconditional access to the central media library. “There are other brands that do this,” continues Segall, “but Kaleidescape is the best.” The Kaleidescape system has a self-check function that is similar to OnStar. During a self-check, if the system finds a potential problem, it will alert the support system, that can then remedy the issue before the user is ever aware of the trouble. A base system covering 10 zones costs about \$70K to \$80K with the capacity to store 13,000 movies, 15,000 CDs or a combination of both. Serious media collectors can add additional servers, and upgraded systems can sell for over \$100K. Most new builds will also incorporate MP3/iPOD docking stations

for guest convenience, and Segall likes the Crestron Apple iPOD Docking Station, which retails for about \$700.

SeaTel is AV Concepts and Design’s preferred brand for satellite television. “Though satellite technology is not expensive,” says Segall, “its application on a boat is.” Most boats like to incorporate two domes to guarantee reception in the event of transmission blockage caused by the position of the vessel. These high-tech systems will detect the blockage and automatically switch over to the unblocked dome. The two-dome system retails for about \$50K plus the cost of the receivers. Satellite systems that offer international coverage are significantly more expensive, running about \$100K, which does not include programming.

Control

The final and most important component of the AV system is the control. Segall points out, “This is the piece that everyone uses on a daily basis, and the user needs to be able to press a button and make it work without having to find a crew member every time they use it.” When no holds are barred, Crestron is the product of choice. A properly programmed unit can do just about everything but get up and tuck the kids in bed for you. The system can not only manage the entertainment components, but can be programmed to control lighting, raise and lower the blinds, activate a service light – even switch a blower on in the bathroom. “It’s pretty incredible what the device can do,” says Segall. “Let’s say you have the 103in display. Using the Crestron, on the one display screen you can watch a movie, a ball-game, access your email, monitor the security camera and see the navigational feed all at once.” Crestron systems start at about \$100K but with programming, and depending on how much is integrated, the system can run well over \$300K.

Add Ons

Of course AV entertainment can include a variety of other equipment such as video game devices and karaoke studios. A more contemporary addition is the VideoRay underwater robotic camera, which allows you and your guests to explore below the surface from the comfort of the couch without getting wet. Available from West Marine, a basic VideoRay retails for about \$6K and expedition models with multiple cameras, sonar and positioning systems sell for about \$47K.

Modern, premium entertainment system engineering is a trade in its infancy stage with mind-boggling potential. Novel trends in technology are bound to wax and wane. Segall is quick to remind us, “just because an exciting piece of equipment is very expensive does not mean that its applications are better.” This has been a misconception that has aggravated many yacht owners and nourished the demand for dedicated AV system engineers.

It is hard to pin-point what exactly constitutes the ultimate AV system. When asked what he considers the most over-the-top system on the water, Segall gives a nervous laugh and says, “There are projects that go way off the charts. When you take into account space, power and air-conditioning needs, it is easy to spend \$1M on a single media room. What it all boils down to are standards and expectations versus personal preference.” But when it comes to onboard entertainment technology, one thing is for certain: as soon as you are convinced that the sky is the limit, someone else will come along and take it into the stratosphere. □

SeaTel Satellite System

