The Atari 5200 Super System –20 Years and Still Going!

The year 1982 saw Ronald Reagan in the White House, Pac Man in video arcades, 'ET, the Extraterrestrial' in movie theaters, and Atari home video games in our living rooms. Long before the Xbox and Playstation, and three years before Nintendo was a household word Atari was at the very top of the home videogame market, and had been for over four years. With the introduction of the Video Computer System in the fall of 1977, Warner Communications and Atari had hooked the home video game market in its infancy and reeled it in like a big game fish. Close on their heels, however, was Mattel Electronics with its Intellivision game system, released in 1979. Mattel had even recruited high school and college computer programmers to brainstorm and create new games, most of which were more detailed and involved than the simple games for the 2600 VCS. And Coleco was gearing up to release an advanced 8 bit game system, the Colecovision. Atari needed to do something to hang onto their lead, but all they had in the works was a 10-bit system known as Atari System X, or 3200, which programmers found too difficult to program for. That had been shelved two years earlier.

In 1981 Atari CEO Ray Kasser directed the engineers to quickly come up with a counter to the Intellivision. The basic design for the new system actually originated three years earlier in 1978. Atari had started work on a high-end video game system with advanced integrated circuits, but an in-house rivalry between the Home Computer Division and the Games Division resulted in the chipset being 'frozen' for use only in its 16k computers. Engineers such as Peter Gerard, Rob Zydbell, Craig Asher and Industrial designer Regan Cheng reworked the basic 400/800 computer (the most powerful home computer of its day), developed revolutionary controllers, ported some tried and true VCS games over, programmed an operating system chip, and poured the whole mixture into a sleek black housing resembling futuristic-looking Bang and Olufsen stereo components and....Voila! Atari had their 'Intellivision Buster'.

The new system was unveiled at the summer 1982 Consumer Electronics Show in Chicago as the Atari Video System X (does that name sound familiar?). By this time the VCS had been officially retitled the Atari 2600, and since they wanted the consumer to know the new system was 'twice as powerful' as the model CX2600 it was christened CX5200. The internal nickname (a tradition at Atari of naming products after female employees) became Pam, but the 5200 almost got the nickname Tammy after the wife of production line manager Brad Saville! The 5200 was very nearly officially titled P.A.M. for Personal Arcade Machine. Luckily the '5200' moniker stuck, and 'Super System' was soon added to increase consumer excitement. Packaging of games also saw changes to set the two product lines apart, the 2600 receiving red-striped silver boxes and the 5200 getting the handsome blue stripe.

Summer of 1982 saw the official release of the Atari 5200. Despite its modest performance on the store shelves, the 5200 was outselling its rival, the Colecovision, by the time they stopped production. But while Colecovision was packing the hottest new title, Donkey Kong, with its new system Atari packaged a lukewarm title, *Super Breakout*, with the Super System. Initially Atari also chose not to introduce any hot new game titles, instead releasing 5200 versions of 2600 games already on the shelves. It was months before unique titles like *Space Dungeon* and *QIX* were released. Several third parties came on board over the next two years to produce software for the new system. A few games then in development continued to be released even two years after the Super System ceased production, notably Big Five's *Bounty Bob Strikes Back* and Lucasfilm/Atari's *Rescue on Fractalus* and *Ballblazer*. The 5200 is also noted for having an unusually high number of unreleased or unfinished prototype games left over when production ended.

Atari 5200 engineers came up with some rather clever innovations for the time. The automatic RF switchbox was ahead of its time by switching the TV to a black screen when the game system was off, eliminating the static hiss between game changes. Input power to the console was channeled through the switchbox, which activated the switching mechanism and reduced the number of cables going to the console. The controllers were ahead of their time, too. The CX52 joystick was Atari's counter to Intellivision's 16 direction controller disc and keypad combination, a very powerful argument in favor of the Intellivision over the 2600. The CX52 went a few better, though. It featured the START and RESET buttons on the controller, eliminating the need to lean over and hit a switch when the game was over, and a PAUSE button was added (the first to do so). But the real advantage was in the speed sensitive potentiometers used to turn up and down and side-to-side stick movements into a full 360 degrees of smooth motion. This was the first handheld video game controller to do this, and most computer joysticks still use this analog-to-digital method. The joystick, while designed more for its looks and abundance of buttons than for comfort, was a far cry from the cramped and painful to use Colecovision controller. (Colecovision's controller, like that of Intellivision, was an all-digital controller, offering only the same 16 directions of motion as Intellivision).

The CX52 controllers had a few design shortcomings though. The first rubber dust boots were tall and would tear after a short while, and the internal flexible circuitry would develop oxidation and cease to conduct a signal. Worst of all it couldn't automatically center like traditional joystick controllers (this is certainly what killed the 5200's first official game, Asteroids). Atari engineers implored the corporate powers not to release the system with the existing controller, but the race to outdo Mattel's and Coleco's game systems was on. Improvements were gradually made to the internal parts, which helped, but the CX52 never got the important fixes it really needed. A centering joystick and a paddle controller were developed; neither saw production. Legend has it the engineer who developed the CX52, Craig Asher, had never even actually played a video game! Coleco was also releasing a slew of add-on modules and controllers for its Colecovision, making it flexible, expandable and very attractive to the buying public. Atari, though short on add-ons for its new "SuperSystem" did more then make up for it. The CX53 Trak Ball was as good as Atari could get! Released in spring of 1983, with an optical sensor system engineered by Dan Kramer, it was durable, sleek looking, and the buttons didn't fail (a gold-trace circuit board seems to have eliminated the conductivity problem, even using the same rubber keypads as the joystick). Best of all it was virtually arcade quality, and brought a video arcade feel to several 5200 games, notably Centipede, Missile Command, and Galaxian. The only drawback was its retail price: $75.00.

The only other piece of supporting hardware for the 5200 was the CX55 VCS Cartridge Adapter. VCS owners who had accumulated sizable game collections were reluctant to buy a new system that wouldn't play their good old 2600 games. Intellivision and Colecovision had already released their own VCS adapters before Atari, so it only made sense that Atari should do the same to boost interest in the 5200. But there were a couple problems. The circuitry inside the adapter didn't work properly with the original 5200 four port circuitry and would short out the 5200 motherboard and power adapter. Additionally, the 2600 color/bw switch was conspicuously absent, which made some 2600 games impossible to play. Atari engineer Gary

Rubio came up with an ingenious solution that solved the four port console problem and saved over a million dollars worth of circuit boards; a circuit reroute that made the interface compatible. Repair kits were issued to Atari Service Centers and Atari offered to modify for free any unit brought in (few 5200 owners actually did so). The motherboard was then redesigned to incorporate the new configuration, resulting in the universal four port – the most versatile 5200 configuration. Atari soon eliminated No. 3 and 4 ports altogether and retooled the circuit board and housing. This was primarily to save production costs, but also because there were only three 5200 games that could use four controllers at a time, *Super Breakout, Tennis,* and the unreleased *Asteroids*. The change introduced a tiny flaw, though. Two 5200 games would not play on the two port system, Activision's *Pitfall!* and CBS's *Mountain King*. Even though the Colecovision had been released months before the 5200, the Atari system held the advantage in several areas including colors, sound, and in this writer's opinion, the controllers. There was talk of a computer-type keyboard for the 5200 (as well as for the 2600) but the in-house rivalry at Atari between the Home Computer Division and the Games Division put an end to that. A scaled down version of the two port 5200 eliminating the controller storage compartment and expansion port (which never saw use) was in the works. This was to save production and shipping costs (the 5200 was a big machine, remember?). Dubbed the 5100, it never saw production.

In the summer of 1983 the 'Great Videogame Crash' was starting to manifest itself. The video game market, already saturated with too many game systems and tons of poor quality 2600 rip-offs, was dumping product as fast as possible. New-in-box games were being unloaded for pennies on the dollar, some still with rebates greater than the selling price (one game purchased at a department store for $2.00 still offered a $5.00 rebate – a $3.00 profit!). Software houses folded left and right, some merged or were bought up by larger companies. A few actually weathered the storm and are still a strong presence in the software market today, Activision being a prime example. That summer CEO Ray Kasser was ousted (amidst accusations of insider trading regarding the sale of personal stocks the previous year) and replaced in September by James Morgan. Warner Communications, after posting a year-end loss of $536 million, was ready to dump video games and Atari in general, and decided that the 5200 would cease production. The last units rolled off the assembly line in spring of 1984.

Atari's newest game system, the 7800 Pro System, had been developed in April of that same year, and 5,000 units produced at Atari's San Antonio, Texas plant (the rare expansion port model) but shelved after Warner sold Atari to Commodore computers founder Jack Tramiel and sons. Tramiel wanted to make Atari a home computers-only company and get rid of anything resembling a video game system. The end of Atari as we knew it began at a press conference in July with a swipe of Jack Tramiel's hand and a 7800 console hitting the floor. But Atari had missed the opportunity of the decade. Atari and Japan's Nintendo had already begun negotiations in summer of 1983 to bring Nintendo's Famicon game system to the U.S. Just when the contract was to be inked Warner gave Ray Kassar the boot and the deal was dropped by Atari, so Nintendo began plans to sell the Famicom themselves as the Nintendo Entertainment System. When Nintendo's NES revived the market in 1985 Atari, the former video game leader, scrambled for a product to compete with. They pulled the warehoused 7800s out of mothballs and started production again. The venerable 2600 also saw renewed production as the 2600Jr. New software was released for both 7800 and 2600 systems, and the 5200 even saw a few new games released in 1985/86. Bill Hogue's sequel to Miner 2049er, *Bounty Bob Strikes Back,* had been finished and was released barely in time to hit a limited market. Atari's *Gremlins*, based on the 1984 movie, came out in 1986. Two games developed by Lucasfilms/Atari were released, *Ballblazer* and *Rescue on Fractalus*. Both of these were graphics and sound showcases for the Super System, and had they been released a couple years earlier (along with some of the more spectacular prototypes like *Xari Arena* and *Super Pac Man*) the 5200 might have gotten a second wind. But the Super System was the first of the classic systems to go, an evolutionary 'dead end' in Atari's history.

The much loved 5200 Super System has maintained a small but fiercely loyal following in the years since 1984. Video game sellers continued to sell 5200 software through the 80's and early 90's, and with the advent of the Internet the 5200 has found a whole new generation of devotees. Ebay and other online auction sites are some of the strongest forces in bringing the 5200 back into the limelight. People looking to recapture their youth and show their own kids 'those great old Atari games' are paying huge sums for games and hardware once resigned to the trash heap. Games bought new in 1985 for $2.00 to $10.00 are selling at auction for hundreds of dollars (I'm glad I don't throw things away!). And the huge library of 5200 prototype games left behind are being made available over the Internet to download and play on home computers using emulator programs. Some are even making their own EPROM carts to play on actual 5200 consoles. Many of these unreleased games are the best ever made for the 5200. There are even a half dozen *new* games in production as of this writing. Programmers who were kids when the Super System was released are writing new 5200 game code, ensuring at least a couple more years of interest in the 5200.

Numerous Internet web pages dedicated to the classic systems and games have sprung up in the last few years, notably the Atari Historical Society, Atariage, and the Atari Gaming Headquarters. These sites are maintained by loyal video game aficionados and collectors, and are a wealth of information for anyone looking for game instructions, rarity of an individual game, or bulletin boards to exchange information. Countless sites also boast personal game collections and offers of trade. Classic gaming conventions throughout the year and across the country help to keep alive and promote the preservation of PAM and her sisters Stella and Maria (2600 and 7800, respectively), as well as other vintage video game systems.

This year, 2002, marks the 20th anniversary of the Atari 5200, and the 25th year of the 2600 VCS. In this age of frighteningly realistic computer graphics and constantly changing hardware it's hard to believe an electronic toy two decades old still has us enchanted with its relatively primitive graphics and monaural sound. So when will the 5200 fade away for good? When folks like us who love the Super System no longer grip a CX52 controller in our hands, press the START button, and guide a dot-gobbling little yellow head through magical blue mazes to catch video ghosts named Inky, Pinky, Blinky, and Sue.

♫ Have you played Atari today? ♫

G. Reese