Stephen Hawking Dashes Hopes of Time Travel Fans

BY JEREMY WONG

On Tuesday 9 April, Professor Stephen Hawking visited Caltech for the second time this year, the present occasion to deliver a lecture at the Beckman Auditorium entitled "Space and Time Warps."

The audience reveres the legend; no other hypothesis accounts for the inspired fervor which filled the golden-ceilinged Auditorium entitled "Space and Time Warps."

"This is not a story," Hawking declared, standing between three rows of seats in the auditorium. "This is an equation...." The lecture became more conjectural as it progressed. He told of his "chronology protection conjecture"—that time travel is possible only microscopically.

The lecture began with a few minutes away in space-time, standing outside. A few had suddenly become enlightened and well-versed in cosmology and general relativity. A standing ovation greeted the Hawking when he entered the room.

Hawking stated that string theory is our best hope for uniting quantum theory and general relativity. He emphasized that time travel cannot be ruled out. He mentioned two possible accommodations. The first is the consistent histories view— one has to find a consistence solution of the equations even if space-time is so warped, that travel into the past is possible. The second is the alternative histories view, proposed by David Dutch, in which the universe is postulated to have a large number of histories. Hawking forced himself against his wishes to support the consistent histories view, although he realized that would entail determinism.

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**News**

**NAVAJO: Teachers Build Sweat Lodge**

The group left, after heartfelt farewells to those in the group who remained in hiding for months ever to be brought before the federal court. Women assembly line workers claim to have been harassed multiple times in the last five years; in some cases, daily.

**Slavnovic, Bosnia-Herzegovina** — Six Muslim men emerged from the hills of eastern Bosnia last weekend to tell a horrifying account of the attack on Srebrenia. Last July an estimated 3000 Muslim men were killed in the attack. These six men who remained in hiding for months were just a few of the 8000 missing persons that resulted.

**Monaovo, Liberia** — Starting Tuesday, the U.S. government began to evacuate Americans from Liberia as factional fighting worsened. 470 Americans associated with the embassy as well as several hundred Liberian citizens who hold American passports will be offered a chance to leave the country which is currently engaged in a civil war.

**Kifiat Shemona, Israel** — Shiite Muslim guerrillas fired rockets at northern Israel Tuesday, wounding 36 people. The Hezbollah group said the attack was in retaliation for a land mine explosion which killed one and wounded two boys. Israeli forces responded with air raids and tank fire against 17 Shiite Muslim villages.

**Toronto, Canada** — The Quebec government has blocked distribution of kosher foods labeled only in English, crippling Passover supplies. For ten years the government has waved the law requiring products sold in Quebec to be labeled in French and English for the Passover because they are imported from the U.S. and Israel. The present crackdown has caused an uproar in the Jewish community.

On the last morning of the stay, a speaker on Navajo culture talked to the group about the Navajo way and how to preserve it. Shortly after lunch on March 29, the group left, after heartfelt farewell speeches and a delicious barbecue, which included traditional Navajo dishes such as mutton roasted in an open pit, fry bread, and blue corn hash.

The Alternative Spring break was a success. Participants had fun, accomplished their community service goals, and were pleasantly surprised by the openness and hospitality of the Navajo residents.

"The immersion in local culture was amazing," a student professed. The group worked hard, but had opportunities to see the corvet (Hyakutake) in an area with little light pollution, interact with other Caltech students, play in the brief, unexpected snowfall, and drive across Arizona in a 4-ward game-playing CB caravan.

Greg Steiert aptly summed up the experience: "Many of us went there expecting to do things for them, but they were working right along side of us making the experience more powerful because we were working with them and not for them and this reminded us just how similar we all are."

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**Deans Seek UCCs for Frosh Camp**

The Deans are interested in hearing from you if you would like to attend New Student Orientation (Camp) as a UCC-at-Large and have not already been selected by your House. Camp is scheduled for Wednesday through Friday, Sept. 25-27, 1996. We hope, with your help, to add to the diversity of the Camp experience for the new students.

Also, upperclass students participating in new student orientation must be eligible for fall 1996 classes by the June UASH presentation must be eligible for fall 1996 classes by the June UASH meeting or they will not be able to attend camp in September. If you have questions about this, please see one of the Deans.

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**Tenth Annual Concert**

**All Mozart**

Fantasia in F, K. 608
Divertimento No. 3 in B-flat, K. 439c
Caltech Chamber Music Program
Dorothy Bing, Director

Divertimento in D Major, K. 136
Caltech Chamber Orchestra
Allen Robert Gross, Conductor

Solemn Vespers, K. 339
Caltech Chamber Singers
Donald Caldwell, Conductor

Saturday, April 13, 8 pm Sunday, April 14, 3 pm
Dabney Lounge, Caltech

*Free Admission*

Come early - Concerts are always SRO!
ATTENTION: FINANCIAL AID RECIPIENTS

To ensure that we have sufficient funds to meet your full financial for this academic year, we have established deadlines to adjust you Caltech financial aid for 1995-96.

If you wish to...
1. Request a Federal Direct Stafford or PLUS Loan
2. Request any other type of adjustment to your 1995-96 award

Requests for adjustments should be submitted by the deadline for class levels. If you are a freshman, sophomore, or junior, submit any written request by May 15. The deadline for seniors is April 15.

All requests should be made in writing and submitted to the Financial Aid Office (MC 12-63) by the appropriate date listed.

Please contact the Financial Aid Office before the date listed if you have any questions.

Thank you for your cooperation.

1996-97 UPPER CLASS MERIT AWARDS

Each year, the Faculty Committee on Scholarships and Financial Aid grants a number of Upper Class Merit Awards to the most academically talented of the Institute's Sophomores, Juniors, and, occasionally, Freshmen. Upper Class Merit Awards are based on outstanding scholastic achievement as demonstrated by exceptional performance in formal classes and/or in independent research, and not on financial need. Last year, the Committee recommended a total of 45 Upper Class Merit Awards. Awards ranged from $6,000 to full-tuition, $17,370. The level of awards in any year is determined by the number and caliber of the applicants.

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This week’s topic: Garbage disposal, selected by Mattas Elijovich.

Most of us take trash, or rather its speedy removal from our immediate vicinity, for granted. But there’s a lot more to it than that. There are almost as many ways to dispose of waste as there are forms of trash, and there’s a lot to be considered when you toss something away. Perhaps the most important question that we, as individuals, have to ask ourselves here is: What’s your favorite way to dispose of garbage (or, as the French say, gARBAGE)? Since I obviously can’t read your collective minds, I will instead share my own hopefully policy-forming opinions on the matter.

Trash comes in many grades these days, but the tip of the garbage world’s social iceberg is without doubt recyclables. Aluminum cans, white and colored paper, plastics of assorted types, and glass in all its many forms can all be easily recycled here on campus. There’s some expense in doing this, though. You actually have to exert effort before you can throw this stuff away. First you have to sort it. Then you have to remember enough basic geography to figure out where the right bins are. Then you have to go to the bin, which in the case of colored paper can be as far away as across the Olive Walk and past the undergraduate mail boxes! Still, recycling is pretty easy to do and if you’re so inclined you can get warm fuzzy feelings from doing it, so there’s really not any harm done.

I recycle things pretty regularly, with the possible exception of aluminum soda (that’s pop to all you weirdos) cans that I empty while in the Rickets House lounge. Those I throw in the fireplace once in a while just to watch them decay over time. It’s kind of cool.

Another really nice form of garbage is soft waste that’s generated while cooking. Most people have a garbage disposal unit in their sinks now, and it’s really pretty satisfying to shove leaves and stems and stuff down this little tiny hole, flip a switch to make a huge grinding noise for a little while, and then try to run water down the newly clogged drain. I prefer to actually just toss food waste into the garbage can conveniently located in the kitchen.

Once you’ve dealt with the easy stuff there’s still a huge mass of, well, GARBAGE that needs to be disposed of. Some of it is pretty easy; there are a lot of really nice garbage cans scattered about the campus that are readily available for use. Most obvious of these are probably the big gray ones that are found in the privacy of your own room or office are pretty spiffy too. On the few occasions where I go cold, I seem to produce a whole bunch of mucus on a regular basis, and there are few things more annoying than trudging down the hall to one of the Big Cans with an armful of snot-soaked tissues and suddenly meeting the woman of your dreams.

This doesn’t mean you have to fire pot. Contrary to popular belief, the pot is in fact a trash can — as long as what you’re throwing away doesn’t stink when it’s burned or left sitting for a little while. Of course, we ask non-house members to leave a small docker for the woman of your dreams. (Kinda like Better Off Dead, but with no elementary school newspaper boy.)

As of Friday, 63.
ATTN: SENIORS

Dinner with the MOSH

If you have never been to Dinner with the MOSH at Steele House and would like to go before you graduate, sign up ASAP in the Residence Life Office. If you have been to a Dinner with the MOSH and would like to go one last time, you too can sign up.

The dinner will be held Tuesday, April 23.
FEATURES

Caltech Affected by Decline in Map-Reading Skills

The latest issue of Useful Statistical Data for Frightening Republican Voters So They Blindly Vote For What You Want reported some rather disturbing news: It appears that the ability of U.S. college students to read maps has severely declined in the past few years. The article reported that only 88% of U.S. college students can find Yugoslavia on a current world map, down from 89% fifteen years ago. Of the 12% who could not find Yugoslavia, 96% could not find the U.S.S.R. and 76% thought Ann-Margaret still looks really good.

"Map-reading is a dying skill," acknowledged Horace Dangerfield, head of President Clinton's Save the Dumb Shit Foundation. "Every day we get reports of more and more people who are dying because their parents never taught them to read a map and practice safe sex. Their promiscuous behavior leads to increased drug trafficking and industrial pollution. If a solution is not found soon, Spring will come." Mr. Dangerfield's office in Bellevue reportedly fields more than 2,000 phone calls a day related to map-reading and eye disorders. Mr. Dangerfield also claims to be a Chihuahua. His doctors declined to comment for this article.

But this is national news, and the average Caltech student normally feels he/she can ignore any reports from the outside world. However, a recent survey by our staff found that the problem of inferior map-reading skills hits home in a shocking way: In a survey of 5 undergraduates, 100% of participants incorrectly identified the center of campus. All five placed the center in the Dabney-Baxter-Keck general area.

Gary Lorden, Vice-President for Student Affairs, was particularly heartbroken by the news. A mathematics professor and amateur map-reader, he has spent the last several years attempting to increase campus knowledge of the whereabouts of the center of campus. When I spoke with me recently about the survey: "It's particularly painful to admit that the inability to read simple maps extends to Caltech undergraduates. No single piece of news has saddened me more. You would imagine that several classes in topology and the famous Caltech common sense would guarantee a campus of high-professional map-readers."

When asked what the administration planned to do about the problem, Mr. Lorden offered to give some quick tutelage in the fine art of locating the center of campus. Taking a map from his desk he instructed me to draw a line from the northwest corner — Del Mar and Wilson — to the southeast corner — California and Hill. Then draw another line from the northeast corner — Hill and Del Mar — to the southwest corner — California and Wilson. Make a note of where the two lines intersect and ignore that point. Then move your finger to the building just west of the new parking structure and argue vehemently that this is where the center is. Ridicule anyone who claims you are wrong. This method assumes the Gym and Health Center are not part of campus. If you wish to adjust the definition of campus to include these buildings, Mr. Lorden has offered to assist you in locating the center of the "new" campus.

I asked Mr. Lorden if there was an easy way to identify the center of campus, and he promptly replied, "Yes, of course. It's where we're building Avery House." On a side note, I asked what he thought of the Avery House project. He paused in reflection for a moment and then answered: "Avery house was our last, best chance for peace... It failed. But during the time of the map-reading wars it became something greater: Our last, best chance for victory."

In addition to the tutelage Mr. Lorden will offer, he plans on meeting with Mr. Dangerfield in Bellevue to coordinate Caltech's efforts with President Clinton's. Hope runs high.

Flame On:

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of a lot more than the credit card companies give us for their cut, any­
way! (By the way, compare the U.S. government’s cut of the GNP to 4% in Swed­
eden, 3% in the UK, 30% in Mexico, and India...especially in light of the fact we spend over a quar­
ter of it on the military, more than almost anyone else!)

There’s a paradox in all of this: if you use a credit card, you get the con­
venience out of it, but everyone pays for it. (With the rare exception of the gasoline stations that charge extra for credit purchases, at least.) Each credit card purchase is a “vote” for a national 4% VAT; and even without a majority voting for, ev­
everyone will pay for credit cards un­
til vendors start charging differently for them and thus actually pinning the cost of their use on their users. This leads me to three suggestions for us all.

1) Kill your credit card. Don’t charge everyone a 4% VAT to pay for the rather minor convenience you got out of its use.
2) Don’t be negative toward vendors that charge more for credit card purchases—in fact, encourage them to do it. They are making credit card users pay more so that everyone else can pay less!
3) If you think the government should spend more for your lib­
eral hippie-type, you’ll encourage the government to issue a credit card of its own. One that can be used to charge college tuitions, welfare pur­chases, health care, disaster relief, ad infinitum. The 4% they suck off could well make it possible to keep all these services going, merely as a result of the use of the credit cards... and it could hardly cost more than the ridiculous paperwork system that the government currently uses. If people stay as short-sighted as they are now, they will not notice or figure out they are all getting hit up for the extra moolah.

If you think the government spends too much already, stop be­
ing stupid about tax cuts. The gov­
ernment should be bringing the debt back down to earth as fast as pos­sible if it wants to make its expenses go down. Debt service was a whopp­ing 14% of this nation’s expendi­
tures in 1994! What would you do if you had a five trillion dollar over­
due credit card bill and wanted to stay solvent? Give up some of your income or work hard to cut down your debt?? Governments don’t deal with bankruptcy well, I’ve heard. I don’t think that’s an option.

You Can Wait Forever for the Future to Arrive—As long as I’m in­
terested in the ‘alternative energy’ field, and as such I often think when solar power, or electric cars, or what have you, will arrive. It’s not likely to occur as a single watershed event, gang. There’s a lot of alternative energy options already available out there, and they are vastly under­
used. Reasonably-priced electric cars are made and sold right here in L.A., by several companies. Wind power, which was generally used in the high desert to provide electric power to nearby communities. There is even a highly-efficient, pollution-free so­
lar-powered clothes-drying device available for under one dollar at most stores. Problem is, people keep waiting to get something for noth­ing. They want electric cars that op­
erate exactly like their gasoline-powered ones. They want to keep their houses in the middle of the whole year round on wind power alone. They don’t want to spend two minutes hanging their laundry out to dry in the sun.

Just about anyone will tell you they want to breathe cleaner air and do their part to protect the environ­
ment... but most are unwilling to make undercompensated sacrifices to do it. The problem is the reverse of the credit-card paradox I raised above: when you make a compro­
mise for the good of the environ­
ment, you only see a very small frac­tion of the benefit yourself. Most of the benefit goes to other people, whether they are environmentally responsible or not. Recycling that tin doesn’t make you any money, right? It costs the same as throwing it away, and it’s more work. Ameri­
cans are generally really bad about doing something for the good of complete strangers... they want to know what’s in it for them, and if that in itself isn’t enough, forget it!

The root problem is that while we all share the consequences of envi­
ronmental irresponsibility, the dis­
tribution is completely socialistic. Each person feels the effects equally, irrespective of their contribution to the problem. So long as this is true, only the idealistic, the stupid, and perhaps the few who are not swayed by the real benefits will make sacrifices for the sake of the envi­
ronment; and they will put in more than they get out of the deal so long

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Develop algorithms to support MPEG, H.263 compression standard and application in C and assembly-level code. Integrate and test in target hardware. Requires an MS/PhD in EE or CS.

Audio Software Engineer

Develop algorithms to support MPEG, G.7xx compression standard and implementation in C and assembly-level code. Integrate and test in target hardware. Requires an MS/PhD in EE or CS.

Graphics Software Engineer

Develop algorithms to support 3D formatted graphics pipeline and image processing algorithms in C and assembly-level code. Integrate and test in target hardware. Requires an MS/PhD in EE or CS.

Architecture & Logic Design Engineers

Define the microarchitecture of a multimedia sig­
nal processor and implement the microarchitec­
ture in Verilog behavioral model. Perform logic syn­
thesis and timing analysis. Requires an MS/PhD in EE or CS.

Communication Software Engineer

Develop algorithms to support US4 models and imple­
ment in C and assembly-level code. Integrate and test in target hardware. Requires an MS/PhD in EE or CS.

Test & Qualification Engineer

Develop test suite to qualify selected software and its megareg to target hardware and application. Requires an MS/PhD in EE or CS.

CAD/CAE Support

Provide support for CAD/CAE software tools in­cluding Verilog behavioral modeling language, logic syn­thesis, timing verification, place and route, hardware simulation and layout verification. Requires an MS/PhD in EE or CS.

Development Verification

Develop diagnostic software to verify a multimedia signal processor and identify design errors by running the diagnostic. Interface with design engineers for corrective actions. Requires an MS/PhD in EE or CS.

CMOS Circuit Design

Develop custom radiation hard circuits for a multimedia signal processor and verify the circuits with simulation and layout. Requires an MS/PhD in EE.

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SAMSUNG SEMICONDUCTOR
**Men’s Volleyball Makes Semi-Finals**

**BY RICH CHIN**

The Pomona-Pitzer Invitational Tournament II was held last Saturday, April 6, fielding teams from Fresno all the way to Utah Valley.

The Caltech Men’s Volleyball Club team was placed in a pool with Cal Poly Pomona, Fresno Pacific University, and Stufffit, a Pomona-based club team.

The first match Caltech played was against Cal Poly Pomona. The club knew from previous encounters that this could very well be an extremely close match, and it proved to be one right out from the outset. The Cal Poly team came out strong, but was matched by Caltech’s own efforts. In the first game, Cal Poly was able to squeak by Caltech, taking it 17-15.

However, Caltech fought back the inspired Cal Poly team in the second, and won it 15-13. The decisive third game was in rally-score, point-per-serve format, and Caltech’s mental game proved to be tougher. Aggressive serving was backed by a solid defense and almost flawless sideout game, giving the match to ‘Tech with a score of 15-8.

Caltech then went on to play Fresno Pacific University. Domination was the name of the game as the club was stronger in every aspect. Having quickly established the potent middle attack, the Caltech offense took advantage of the off-balance Fresno block to pick apart the Fresno defense.

The club’s own blockers were not fooled at all by the Fresno offense, frustrating the Fresno hitters to no end. Caltech steamrolled through to a 15-4, 15-8 victory.

**Aggressive serving was backed by a solid defense and almost flawless sideout game.**

Stufffit was the last opponent of Caltech’s pool. Played immediately after the Fresno victory, Caltech was still inspired in the first game, quickly jumping ahead and earning a 15-4 victory.

Perhaps lulled into a false sense of security, the club team made the mistake of letting Stufffit back into the match in the second game. Their hitters and passers warmed up while ‘Tech’s had already peaked. After a furious sideout battle, they were able to grunge out a 15-12 victory. The third game was also close, but Caltech made a few costly errors to give the game away, 10-15.

Even with the loss to Stufffit, Caltech had played well enough in the previous matches to win the pool and advance into the championship bracket to face Utah Valley, who had taken second in Club Nationals last year.

Unfortunately for Caltech, the long matches during pool play took their toll in the playoffs. Utah had brought three of their better players halfway through the tournament while Caltech’s own team had been playing since the beginning.

Still, Caltech put up a strong fight, creating scoring opportunities and siding-out very well, and showing great determination and mental toughness. In the end, though, Utah Valley was able to edge out Tech in two games, 11-8, 11-8.

Kudos to the team members who went: Andy Berkin, Mike Burt, Rich Chin, Weng Ki Ching, Stuart Demcak, Chad Edwards, Joel Jones, Gary Leskowitz, Jack Prater, and Ken Wiberg.

Caltech’s next home match will be its last match of the season.

Come watch the club take on Whittier Friday, April 26th, in Brown Gym, and defend its undefeated home court season!
injuries. He has the potential to be a superstar. Brady Anderson is the center fielder; he is excellently defensive and can hit 15 home runs and steal 30 bases. Bobby Bonilla plays right field to the Orioles. He is equally good defensively and can hit 20 home runs and 75 RBIs.

Kris Benson, at this stage of his career, is a defensive liability. When healthy, he is one of the best pitchers in the AL. If he can avoid the injury bug which derailed him last year, he will be as bad as he was in 1996. He is still young (25) and has a good 12 wins and an ERA of about 4.00. Tom Gordon will probably do about the same, and Jamie Moyer is about as good as a number five starter as any of the above. He is a defensive liability; he has hit his skin will not serve him well in New York. Moreover, if the Yankees get off to a slow start, new manager Joe Torre can expect to fail. Team captain Don Mattingly retired after last season, and will be replaced by New Acquisition Tino Martinez. He is average defensively, but has a lot of power. He hit 30 home runs last year. However, it is unknown whether last year was the beginning of a higher level of performance or just a career year. The starting pitching still has the potential to be quite good. However, it may hold back, Kenny Key will begin the season on the disabled list while he recovers from rotator cuff surgery. David Cone, one of the best pitchers in baseball, remains the ace. Southpaw Andy Pettitte won 12 games as a rookie last year. He is a younger player, and has several years remaining in his prime. He should be able to hit major league pitching over a full season. He seemed like an adequate defensively with his glove. Righty Jose Contreras will be the starting season in the bullpen. He should move into the rotation shortly. Dwight Gooden, the possible number five starter, needs to show that he can recover from a one-year drug suspension and a couple of mediocre seasons. Melido Perez and Scott Janzen will also start some games for New York this year. The relief corps is led by John Wetteland, one of the best closers in the game. Steve Howe, owner of several drug suspensions, will lead the Yankees all-closelies anonymous meetings and serve as their primary reliquated reliever. Both Wetteland and his middle reliever. Catching in the Bronx will be Joe Girardi, notorious for his slow pitching percentage before he started playing for Colorado. Now that he no longer plays in Denver, his bat­ting statistics will return to their previous level. He is an adequate defender, why the Yankees let Mike Stanley sign with Bos­ ton is a mystery. At first base is Martinez, and at second in Tony Fernandez. Fernandez used to be a star, but he has declined considerably both at the plate and in the field. He also whitewashed incessantly. When Pat Kelly returns from the DL, in two months, Fernandez will find himself on the bench. Kelly is average as a defender and at the plate. The shortstop is rookie Derek Jeter. Though he has great offensive potential (the potential to be a leadoff hitter), he is currently an offensive and defensive liability. You can’t get up’ Since winning their second consec­utive World Series in 1993, the Blue Jays have become one of the worst teams in the league. Fortunately, the Tigers are in the same division, so the Jays may escape the cellar. The starting rotation currently consists of Eric Hanson, Pan Hieung, Juan Guzman, Paul Quantrill, and rookie Jeff Wiersman. Hanson is a solid pitcher, but he is not the ace he was before his arm surgery several years back. Hengen had a low year last year and needs to return to his 1993 form when he was 19 games. Quantrill was in double digits for the Phillies but had an ERA of 4.07. He needs to do better, but has never done so in the majors. Juan Guzman was once of the most dominating pitchers in the AL but, at his best he will only 15 wins. But Guzman is still a very good pitcher and has a lot of potential. However, he needs to improve his control. The bullpen, like the starting staff, is quite weak without any outstanding relievers. The clos­ ing tandem is Jim Bunning and Eric Johnson.

The Boston Red Sox are likely to have a great team, and a solid team at that. They have a very good defense, and have the potential to hit well. The Red Sox will win the AL East.

Last year, the Red Sox relied on some career years to propel them to the top of the American League East. They cannot ex­ pect certain players (Tim Wakefield comes to mind) to repeat last year’s performance. Nevertheless, they are a solid team and a return to health by ace Roger Clemens should make them contenders. Clemens was 10-5 last year, but his ERA was over 4.00. (He also spent some time on the DL.) Though he will likely never again be as good as he was in 1996 (when he won the first of his three Cy Young Awards), he should still be 10-5 last year, but his ERA was over 4.00. The second baseman is Wilfredo Cordero. He is a defensive liability, but has good power for a middle infielder and could hit 30-40 home runs. Shortstop John Valentin was the top offensive shortstop in the AL last year. He had a 298 batting average, 27 home runs and 101 RBIs. He also stole 20 bases, de­ fines him as above average. The third baseman is Tim Naehring. Last year, he avoided injury for the first time in over five years. He verified the suspicion that he was very healthy; however, he was not exactly a solid fielder. Moreover, when healthy, he is average defensively, and above average at the plate. The center fielder is expected to be one of the better pitchers in the AL, if he can avoid the injury bug which derailed him last year. Wakefield will not come close to what he did last year, but will be as bad as he was in 1996. He is still young (25) and has a good 12 wins and an ERA of about 4.00. Tom Gordon will probably do about the same, and Jamie Moyer is about as good as a number five starter as any of the above. He is a defensive liability; he has hit his skin will not serve him well in New York. Moreover, if the Yankees get off to a slow start, new manager Joe Torre can expect to fail. Team captain Don Mattingly retired after last season, and will be replaced by New Acquisition Tino Martinez. 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Randy Oliver is back’ Owner George Steinbrenner has vowed to do “hands on” baseball, and former Oriole Jamie Moyer in the bullpen, like the starting staff, is quite weak without any outstanding relievers. The clos­ ing tandem is Jim Bunning and Eric Johnson.
American League East for Baseball’s 1996 Season

O’Brien, despite his low batting average, can hit for some power. First baseman John O’Brien is an above average fielder, despite his off year last year, is a good hitter. Though 1995 may have been his career year, he should be reclassified as a .300 with 20 HRs. Domingo Cota will get most of the starts at second base this year. He is above average defensively, but cannot hit major league pitching. Replacement Felipe C pelos and Thin Beto may both get chances at the second base job during the season. Incentient Alex Gonzalez retains the shortstop. He is excel- lent defensively and should continue in his development as an offensive player. He reached double digits in HRs last year, and could easily hit 15 this year. His batting average and number of stolen bases should also rise. Third baseman Fal Spriag, a member of the 1996 Olympic Team, is a pretty good defensive player and is solid of­ fensively. One can expect 250 average, 20 HRs, and 75 RBIs from him. Joe Carter will play left field this year. Last year saw his string of consecutive 100 RBI seasons come to a close. However, he still drove in over 70 runs. His average also dropped, so Carter may be nearing the end of the road. Expect him to be traded to a contender this summer. The center fielder is Ottis Nixon, a stereotypical leadoff hitter who is only an average defensive outfielder despite his great speed. Shawn Green is the Blue Jays’ rightfielder. He had a solid rookie year last year and should become a top of the line super-star. The DH will be Carlos Delgado, who has shown during the past two years that he cannot catch or play the outfield competently. He will almost certainly fill in for O’Brien at first base. His is extremely valuable, as Delgado has the potential to be a perennial 30 HR 100 RBI hitter. The Blue Jays should finish in fourth in the AL East, barely ahead of the Detroit Tigers. The Orioles, Red Sox, and Yankees are miles away in terms of tal­ ent.

Detroit Tigers

Buddy Bell is managing the Tigers this year. Former skipper Sparky Anderson will be­ gin the season doing some announcing for the Tigers then moving on to manage the Reds. Lou Whitaker and Kirk Gibson have retired, and Alan Trammell has been reduced to reserve status. The starting rotation is the patchwork tandem of Felipe Lara, Scott Alden, Omar Olivares, Greg Gutierrez, and who knows who else. Line work is sometimes a problem, but he lost one and had an ERA over 4.00. Alden and Goh leave have never experienced sustained suc­ cess in the major leagues. Olivares had one good a few years ago for the Cardinals, but he has had the worst season in his career. The Tigers, after trading Sean Bergman, probably have the worst rotation in base­ ball. It may have been the worst one even before they made the trade. The closer is Brian Williams, who has "good stuff" but could never control it either as an Astro or as a Padre. The Tigers pitching staff is so bad that they will probably be celebrating games that are rained out! The probable starting catcher is John Flaherty, who has

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Events

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