

King and IBM 370 ready for pro prognosticators

Jimmy the Greek has been crystal ball gazing a long time now, long enough to figure perhaps that he no longer need be concerned with young upstarts.

Nevertheless, a new evangelist of the bookie's bible appears to be coming over the horizon, and this guy doesn't work alone.

His name is Gary King and his associate is a one and a half million dollar think machine that resides in the Computer Science Building. Together, they call the spread on pro football contests, and even predict the play-by-play of hockey games.

King, a graduate student in computer science at present, said that while he was doing undergraduate work at Albany State, he raked all the local prognosticators over the coals.

"My program beat all five newspaper selectors two years ago, and last year it beat four and tied the other guy," King said. "There was a sports-caster in town, too, and I clobbered him pretty good."

In addition to that crew, King said his program, with a 70 per cent accuracy rating, topped another local computer by six or seven games.

"The only input is the scores of the pro football games up to that date and a slight, one-point home field advantage," King said.

With a system like this going, how come there's still a bookie in the country with a penny in his pocket?

King explained that due to a flattening effect on the scores, his system is incapable of putting any football bookies on the welfare roles.

"A couple of times I did check my system



Rick Starr
ass't sports editor

against the bookie sheets," King said, "but since it's essentially an average, my spreads always come out closer. And since they're under the betting spreads, they won't work if you're trying to use the computer to beat the sheets."

Another bug in the program, King explained, is the necessity of relying on last year's results to predict the games during the first few weeks of a new season.

"The first few weeks are kind of funny, but after about three weeks things start to settle down pretty much," King said.

The idea is indeed interesting, but how about something closer to home, like predicting the Nittany Lions' Saturday football fortunes?

College football, King said, would be much more difficult to program due to the larger number of teams, their relative inconsistencies and the fact that they play so few common opponents.

However, King has expanded his operations into pro hockey.

If actual hockey games go by a little too quickly for you, computer hockey might be the answer. All you need is the program, and you can sit for hours and hours, watching the play-by-play of endless

hockey games come churning out of the IBM 370. And building a program isn't really all that difficult. Start by dividing the ice into four sections, by using the blue line and the two red stripes.

As King explains, "In each of the four sections, there is a percentage of times a player will pass the puck, shoot it or keep it on his stick. Home ice is a big advantage since teams generally pass and execute better at home, and that is weighed heavily."

After the machine gets all the dope, start the game with a faceoff and get out your reading specs. The play by play comes out looking like the transcript of a hockey game radio broadcast, complete with a final statistical wrap up.

Pittsburgh and Philadelphia playing a game at the Spectrum might come out 4-2, Philadelphia, while the same opponents meeting at Pittsburgh's Civic Arena might battle to a 2-2 tie.

The pro football program, which would take a mere human about three hours to work out, only runs about one tenth of a second in the computer, and King claims that when it comes to calling the Steelers and Eagle contests, his speedy friend seldom errs.

"Last year, I was only wrong on one Steeler game (the first meeting with Cleveland) and one Eagle contest, not including ties," King said.

The computer gave the Steelers the nod over Oakland in the Steeler's first playoff game last year by one point, due to the Steelers' home field advantage.

Pittsburgh won 13-7 when Franco Harris scooped up a deflected pass that initiated the Feast of the Immaculate Reception.



Photo by Randy J. Woodbury

Would you bet on the Super Bowl with this man?

Paterno not satisfied yet

By RAY McALLISTER
Collegian Sports Editor

The day Joe Paterno is satisfied, of course, is the day Penn State football will cease to ride high in the national polls, to be a likely bowl participant, to be a near-certain Lambert Trophy winner.

By now it must be second nature. As always, the Penn State coach is pleased with some aspects of his team's progression to the level he feels it must attain for the Sept. 15 opener at Stanford. Very obviously, he is displeased with some.

"They're all so tired out there. They're very sluggish," Paterno offered Wednesday after another of the afternoon practices. This one, on the 10th straight day of 90-degree-plus temperatures, ran two and a half hours. That was some 15 minutes longer than the norm.

"But there's been no practice where they haven't worked hard," he said. "This is probably the hardest-working team we've ever had."

A spring and a summer of that work by the players, and much more by the coaches, has gone into preparation for Paterno's eighth season here. More is needed, however. There must be a certain luck involved.

The offense, for instance. Most of it is manned by those who owned the positions last season. Experience, then, would seem to insure a pretty smooth working operation. But not necessarily.

"Staying healthy is the big thing," Paterno said. "Either on offense or on defense, ultimately that is what produces the really good team. I'm not talking about just the good team, which you could have anyway, but the really good team."

That was the case with the offense in 1971 (including Lydell Mitchell, Franco Harris and John Hufnagel) which was so successful. We managed to keep (All-America tackle Dave) Joyner in there all the time.

"I don't think we lost more than a minute of timing all season."

And how about this season? By now the fundamentals should be pretty well in hand. How is that timing?

"Horrible," Paterno said. "I had expected us to be much farther along by now."

Still, he does not seem worried. Concerned, yes. He always is concerned; he has to be, particularly when the progression has not been made quite as quickly as he had expected, as he had hoped. But he does not give the impression that he is worried.

Indeed, he says he is pleased with the quarterback situation, felt to be one of Penn State's weaknesses after the graduation of All-America John Hufnagel. Though some depth was lost when Dan Tarosky was "forced out of the season by knee surgery," Paterno calls the position "pretty good." Tom Shuman, he says, has shown himself capable of handling it while Dick Barvinchak has emerged as a strong backup.

There is one area for more than a little concern, however. In-



juries have mounted quickly thus far, nagging little things for the most part. But several have come to key players, keeping them inactive or at half speed.

"We had intended to scrimmage today," Paterno said yesterday. "But we're a little bit too tired, a little bit banged up, and I didn't feel we'd get enough out of it so we've decided not to scrimmage."

What Paterno calls "most of the tough work" has been finished now, that is, most of the conditioning work. Now it is on to the mental work, on to refining the subtleties.

That should be somewhat easier now. For one, the oppressive heat should subside.

"This has been the hottest pre-season practice we've ever had," Paterno said. "In the 20 years that I've been here, we've never had nine or 10 straight days with the temperature over 90."

But he doesn't contend that what has been holding his team back this fall. The heat has not been that much a factor.

"If we're a good football team, that shouldn't hold us back. If we're not," he laughed, "we'll use that as an excuse."

Vitiello still kicking - soccer balls

By MARK SIMENSON
Assistant Sports Editor

Al Vitiello came back and Herb Schmidt is glad he did. Returning from a two term hiatus, Vitiello is ready to start kicking again. This time he has set his sights on the Jeffrey Field goals instead of his old shooting gallery at Beaver Stadium.

"I was coming back to school and I thought I would play," the senior offered during soccer press day earlier in the week.

Vitiello is eligible for soccer because an athlete has five years to use up four years of eligibility in each sport. He played soccer and football two years at Nassau Community College before assuming the kicking chores for Joe Paterno in 1971.

While he was successful kicking footballs, the mustachioed Vitiello loves the fast-paced action of soccer, something that was missing during his tenure on the football team.

"I didn't do anything at football" he said. His playing time each game was limited to a couple of minutes and a few swings of his left foot. In two dozen games Vitiello set seven Penn State kicking records. They include most extra points in a game—nine, season—59; career—98; best season percentage for extra points—97.5; most consecutive extra points—43; most field goals in a season—eight and the most points kicking in a season—74.

Where Vitiello will play is still one of the questions Schmidt has to solve. "He's been playing on the line and midfield," the Lion coach said. "We haven't really been having scrimmages that I could tell anything from, but he's done well."

Vitiello said he likes to play offense and will play "anything but goalie." The reason is a simple one. "I don't know how to play it," he admitted.

Schmidt has a surplus of good goalies, so Vitiello might find himself in a position to score goals, something he was accustomed to doing at Nassau. "But that was a long time ago," he added.

While he would rather play soccer, Vitiello jumped at an opportunity to play football when Penn State offered him a scholarship.

"The reason I played football was I had to," he said. "There aren't too many teams I could get a scholarship to play soccer on."

When Vitiello was recruited to perform the Lion kicking chores, he made some overtures to Schmidt about playing soccer after his football commitment was up.

"We had talked about this from the time he transferred to Penn State," Schmidt recalled. "He's always had a distinct interest in soccer and he thought he'd be around an extra term before he graduated. I'm glad it worked out."

Vitiello has a strong kicking appendage (he owns the junior college field goal record of 60 yards) and would complement Chris Bahr, who has earned the nickname "Thunderfoot."

Unlike Vitiello, who would rather play soccer than football, Bahr wants to do both. An All-American at halfback last year as a sophomore, Bahr is trying to win Vitiello's old job.

Vitiello is confident he can crack the State lineup, which is shooting for a fourth consecutive NCAA playoff bid. He has kept close to the game by playing in an organized league on Saturday's back home in Nassau.

"I'm in pretty good condition," he said, "but I have a long way to go."



Photo by Randy J. Woodbury

Al Vitiello is back in uniform - almost

Pirates dump Virdon

Murtaugh joins team in Philly

PITTSBURGH (AP) — The Pittsburgh Pirates announced yesterday that they were firing Manager Bill Virdon and calling back Danny Murtaugh to succeed him, effective immediately.

The announcement was made at a hastily called late afternoon news conference at Three Rivers Stadium by Joe L. Brown, general manager of the club, which has been plagued by malady and misfortune ever since star right fielder Roberto Clemente was killed in an airplane crash off Puerto Rico Dec. 31, 1972.

Brown said Murtaugh, 56, an affable, cigar-chewing Irishman, would remain as manager at least through 1974.

Brown refused to discuss his reasons for the shuffle, but said the announcement was his "most difficult ... in my 35 years of baseball."

Virdon, 42, who had succeeded Murtaugh as manager after the Pirates' 1971 World Series victory over Baltimore, said

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he had no immediate plans, beyond a vacation.

Murtaugh was not immediately available for comment.

Brown's announcement was made as the team, after a day off, was preparing to leave for Philadelphia, where they begin a weekend series against the Phillies today.

Player reaction was mixed, sources close to the club said. One bystander said catcher Manny Sanguillen had tears in his eyes when he learned of the change. Others appeared unconcerned, while some

seemed shaken, bystanders said.

The team knew something was wrong, sources added, when Virdon's gear was removed at the last minute from a truck that was to carry club equipment to the airport.

Murtaugh joined the team's front office as director of player acquisition and development when he stepped aside as manager in 1971.

Virdon, who had been Murtaugh's right-hand man during the 1970-1971

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DUNKEL'S FOOTBALL INDEX

Lions picked 10th, USC 1st

By DICK DUNKEL

And now the good news — there's no pigskin shortage.

A counterful, of choice cuts headed by Nebraska-UCLA awaits college football fans tomorrow.

But first a pre-season exhibition of our own — these nominations for leadership in 1973:

Best majors — Southern Cal, Texas.
Best minors — Grambling, Louisiana Tech.

Most improved — Houston, Northern Illinois.
Hardest schedules — Oklahoma, Kansas.

This is just guesswork, of course. The real story of the 1973 season will be told right here by the teams themselves.

Each week the teams will set their own ratings on the Dunkel College Football Index, now entering its 45th year. Last season the Index again demonstrated its validity by selecting winners in 75.2 per cent of the 1,815 games covered.

Here's how the Index works. A team's rating is a progressive combination of the averages of these two factors: (1) scoring margin and (2) rating of opposition. Example: last season Southern Cal played opposition with an average rating of 90.6 and outscored it by an average 27.5 points per game. Adding the two figures gave Southern Cal its No. 1 rating of 118.1.

Here's our forecast for this year's Top 50 (with last year's final ranking in parentheses):

1. S. California (1)
2. Texas (5)
3. Alabama (6)
4. Michigan (10)
5. Nebraska (3)
6. Ohio State (16)
7. Tennessee (8)
8. U.C.L.A. (17)
9. Auburn (4)
10. Penn State (7)
11. Houston (28)
12. Notre Dame (23)
13. Oklahoma (2)
14. Florida (20)
15. Okla. State (19)
16. Arizona St (11)
17. N. C. State (12)
18. Georgia (18)
19. S. Methodist (30)
20. Colorado (9)
21. Wash. State (21)
22. Tulane (33)
23. Mississippi (13)
24. N. Carolina (22)
25. Louisiana St (15)
26. Georgia Tech (25)
27. Purdue (14)
28. Texas Tech (25)
29. Louisville (31)
30. Michigan (3)
31. W. Virginia (37)
32. Arkansas (39)
33. Miami, Fla (34)
34. Iowa State (27)
35. Missouri (24)
36. Illinois (41)
37. S. Diego St (26)
38. Kansas (35)
39. Stanford (43)
40. N. Illinois (75)
41. Minnesota (44)
42. Tampa (45)
43. Washington (36)
44. Baylor (29)
45. Iowa (55)
46. Utah (58)

47. Maryland (59)
48. California (47)
49. Florida St (54)
50. Memphis St (65)

SMALL COLLEGES: Grambling, Louisiana Tech, Delaware, Tennessee State, South Dakota, NW Louisiana, Idaho State, Tennessee Tech, Montana State, Ashland.

Oklahoma faces the season's toughest schedule. Sooner opponents include Southern Cal, Texas and Nebraska and have an average rating of 97.9. Others with formidable schedules include Kansas, 96.3; Kansas State and Missouri, both 95.1; Miami, Fla., and Nebraska, both 93.4; and Georgia, 92.8.

Penn State, forecast to finish 10th, has four opponents picked for the Top 50: North Carolina State (17), West Virginia (31), Stanford (39) and Maryland (47). The Lions open at Stanford Sept. 15.

Notre Dame continues to lead the all-time (44-year) Index with an average rating of 101.2. Following in order are: Ohio State, 98.2; Southern Cal, 98.0; Alabama, 97.3; Michigan, 96.6; Tennessee, 96.2; Minnesota, 94.0; Louisiana State, 93.2; Texas, 92.9; Oklahoma, 92.8; Purdue, 91.9; Army, 91.5; Michigan State, 91.4; Northwestern and Stanford, 89.5; UCLA, 89.2; Georgia, 88.9; Georgia Tech, 88.8; Illinois, 88.7; Texas Christian, 88.5; Washington, 88.5; and Navy and Wisconsin, both 88.2.

Back to the business at hand. Here are comparative ratings — carried over from last season on our continuous Index — for this weekend's games:

EXPLANATION — The Dunkel system provides a continuous index to the relative strength of all teams. It reflects average scoring margin combined with average opposition rating, weighted in favor of recent performance. Example: a 50.0 team has been 10 scoring points stronger, per game, than a 40.0 team against opposition of equal strength, throughout its 1972 season.

| Higher Rating Team | Rating | Opposing Team | Rating |
|--------------------------|-----------------|-------------------|--------|
| MAJOR GAMES | | | |
| SATURDAY, SEPTEMBER 8 | | | |
| Appalachian* | 69.2 | (1) Western Ky | 62.5 |
| Arizona | 79.5 | (22) Colo. St* | 57.4 |
| Clemson* | 77.4 | (16) Citadel | 61.2 |
| Dayton* | 67.8 | (8) Youngst'n | 59.5 |
| Fresno St* | 69.9 | (24) Cal Poly | 46.2 |
| Grambling 82.1 | (17) Long Beach | 48.1 | |
| Idaho* | 64.5 | (8) Tex. El Paso | 64.8 |
| Lamar | 62.5 | (10) N.Mex. St* | 62.2 |
| Louisville | 89.5 | (10) Memphis* | 79.3 |
| Mass. U.* | 72.5 | (7) Holy Cross | 65.7 |
| Mississippi* | 98.6 | (33) Villanova | 85.5 |
| Nebraska* | 117.2 | (20) U.C.L.A. | 97.4 |
| N.C. State* | 100.3 | (25) E. Carolina | 75.1 |
| N. Illinois* | 77.4 | (13) Indiana | 74.0 |
| Pacific* | 72.0 | (35) Sac'to | 36.8 |
| Presby't'n* | 89.9 | (20) Furman | 39.5 |
| San Jose* | 72.7 | (27) Sta. Clara | 46.1 |
| Temple* | 66.7 | (16) Xavier | 50.5 |
| Virginia* | 71.8 | (11) V.M.I. | 60.3 |
| Va. Tech* | 91.8 | (19) Wm & Mary | 72.7 |
| W. Carolina* | 67.1 | (10) N. Tex. St* | 57.5 |
| W. Michigan | 68.9 | (8) Cent. Mich* | 61.3 |
| W. Tex. St* | 53.9 | (2) Drake | 61.1 |
| Wofford | 53.0 | (1) Davidson* | 52.4 |
| OTHER EASTERN | | | |
| SATURDAY, SEPTEMBER 8 | | | |
| Delaware* | 84.9 | (24) Akron | 89.2 |
| Edinboro* | 49.0 | (17) Fairmont | 23.5 |
| Lehigh | 53.5 | (21) Hofstra* | 32.7 |
| Maine | 43.0 | (6) Vermont* | 42.8 |
| OTHER MIDWESTERN | | | |
| SATURDAY, SEPTEMBER 8 | | | |
| Ashland* | 67.8 | (19) Franklin | 48.8 |
| Augsburg | 40.4 | (11) River Falls* | 29.5 |
| Bemidji St | 21.1 | (8) Valley City* | 12.5 |
| Chadron* | 29.8 | (18) Rocky Mt | 11.6 |
| Colo. Coll.* | 34.9 | (10) Hastings | 24.7 |
| Defiance* | 29.1 | (7) Olivet | 25.5 |
| Delta St | 63.3 | (14) So. East Mo* | 51.5 |
| Dickinson St | 15.4 | (9) Black Hills* | 6.5 |
| Doane | 40.8 | (31) Yankton* | 10.3 |
| E. Mich'n* | 69.8 | (10) Ball State | 60.0 |
| Emporia | 42.1 | (24) E. Ky | 18.9 |
| Evansville | 46.1 | (14) Ind. Cent* | 31.8 |
| Ferris | 49.9 | (10) Alma* | 40.0 |
| Findlay | 31.1 | (13) G'town Ky | 18.9 |
| Graceland | 33.3 | (16) Peru St | 17.4 |
| Hamline* | 33.8 | (17) Stout | 18.8 |
| Illinois St | 62.8 | (20) Wis. Mill* | 42.7 |
| Jackson St | 61.6 | (15) Omaha* | 46.2 |
| Kearney* | 41.8 | (6) Cent. Mo | 41.8 |
| Langston* | 53.8 | (19) Bishop | 34.9 |
| Macalester* | 18.7 | (6) Bethel | 12.5 |
| Mo. South'n* | 54.9 | (24) E. Ky | 30.7 |
| Morehead | 49.3 | (11) Central St* | 37.7 |
| N. Dakota | 74.8 | (21) Mansakt* | 52.5 |
| N.D. State* | 68.8 | (18) N. Arizona | 50.9 |
| N.E. Mo. St* | 41.3 | (5) Cent. Mich* | 38.4 |
| North'n Iowa* | 52.5 | (13) Evansville | 41.0 |
| OTHER SOUTHERN | | | |
| SATURDAY, SEPTEMBER 8 | | | |
| Alcorn | 59.2 | (9) Pine Bluff* | 50.3 |
| Angelo St | 68.4 | (16) Cent. Okla* | 52.5 |
| Ark. State* | 61.5 | (18) Abilene | 52.5 |
| B-Cookman* | 48.7 | (11) S.C. State | 37.7 |
| Bluefield | 41.8 | (11) Concord* | 30.8 |
| C-Newman | 69.3 | (11) Samford* | 35.1 |
| E. Cent. Okla | 52.7 | (8) McMurtry* | 47.7 |
| Eastern Ky* | 59.2 | (11) Chattanooga | 48.3 |
| E. Tex. St* | 72.0 | (31) N. West La | 69.9 |
| Elon* | 60.6 | (26) G-Webb | 35.0 |
| Emporia | 52.8 | (10) Ark. Tech* | 42.8 |
| H-Sydney* | 42.5 | (29) Guilford | 18.8 |
| Harding | 60.1 | (16) Tarleton* | 44.2 |
| Henderson | 55.3 | (16) Aus. Psey | 48.3 |
| Hillsdale | 51.3 | (11) Glenville* | 40.4 |
| How. Payne* | 57.1 | (10) Tex. L'n* | 48.8 |
| OTHER FAR WESTERN | | | |
| SATURDAY, SEPTEMBER 8 | | | |
| E.N. Mexico | 38.5 | (11) Panhandle* | 37.4 |
| Idaho State | 72.2 | (2) Mont St* | 71.4 |
| Montana* | 61.1 | (23) S. Fraser | 21.1 |
| Nev. Las* | 47.1 | (15) S. Cal. Ark | 31.6 |