Don Cook, president of Donald B. Cook & Associates, offers his computerized golf course simulator service, designed to determine the comfortable course capacity of an existing course and expected capacity of a planned course renovation or new course by STEPHEN W. BYERS

The slow play bug-a-boo has plagued golf courses since America’s interest in golf outdistanced construction of playing facilities. The National Golf Foundation has recently called for acceleration in the building of public courses to check the increasing player congestion on available golf facilities and to ensure that course construction keeps pace with the rising numbers of initiates to this burgeoning sport.

But until a balance is reached between the number of golfers and the number of courses needed to accommodate them, the industry must face the problem of how to unplug those bottlenecked holes that can suffocate player interest and stifle the golf course revenue required to perpetuate the game.

Don Cook, president of Donald B. Cook and Associates, is now offering, as a possible vaccine for slow play, his GCS (Golf Course Simulator) computer simulation service specifically developed for use by golf course architects. Although there is to date little evidence of GCS’s effectiveness, Cook is confident it will help course designers to reduce waiting time on existing courses and to spot design problems before construction money is spent for course remodeling or building a new facility.

WHAT IS GCS? WHAT CAN IT TELL YOU?

GCS is designed to:
1) Develop data to produce a more effective starting time system for an existing course;
2) Evaluate a proposed design renovation as to "playability";
3) Evaluate a design proposal for a new course project with an eye peeled for rough spots that could later develop into bottlenecks and attendant slow play problems.

GCS integrates actual time study statistics, data provided by the architect, and a carefully programmed computer network to develop key course information before the architect puts the finishing touches to his design. The time statistics were decided, according to Cook, from over 200 time study observations of different golfers playing several different courses. From these studies playing time values were developed for computer simulation on over 30 key playing elements such as hitting the ball from the tee, walking and putting.

Though an explanation of how these time values were determined for each of the many elements would be too lengthy for this article, GOLFDOM will show how Cook arrives at a value for the element of hitting from the tee. The two units of time the computer will use for this element are: 1) the average (of 200 observations) time it takes for a foursome to hit from the tee, starting the study when the first hitter addresses the ball and ending when the last hitter hits the ball; 2) the time range between the slowest to the fastest hitter of the foursomes from 200 observations. This, says Cook, builds golfer variability into GCS. The computer has been programmed to select random specific time values that fall within these given ranges. This results in

GCS Architectural Data Sheet above shows architect’s appraisal of hole difficulty and other salient features of his proposed renovation or plans for a new course.

Profile above shows the waiting time relationship between the GCS study of an existing course and the study of a renovation.
COMPUTER

in a simulation that allows for various
types of golfers playing the course.

Added to these values for computer
simulation is the information supplied
by the golf course architect about his
specific course project. This will in-
clude facts relating to hole design,
such as hole sequence, distance and
difficulty based, not on par, but on the
playing time of each hole. The archi-
tect must also render a classification
of each hole as "normal," "difficult" or
"very difficult" (with GCS, "dif-
ficulty" refers to difficulty regarding
time required to complete the hole,
rather than difficulty in scoring). With
this information, Cook says GCS can
furnish data such as capacity; waiting
time profile, showing waiting at each
hole, and playing time data, which
measures the golfer’s time on the
course.

GCS does not redesign the course or
explain why the course will have the
reported waiting time characteristics,
Cook warns. Cook says that golf
course architects using GCS can be as
successful in designing courses with
maximum capacity and smoothness of
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WHAT PROOF THAT GCS WORKS?
As yet, there are few examples attest-
ing to the practical application of
GCS, but those architects who have
tried it have reported generally favor-
able results. The GCS service pro-
duced some "interesting findings" (according to the club) for the Wood-
way CC in Darien, Conn., where alter-
ing the course to permit simultaneous
starting on the first and 10th tees was
evaluated. But the club president re-
ported that Woodway had not yet in-
corporated Cook’s GCS-propounded
suggestions.

Architect Geoffrey Cornish of Am-
erst, Mass., says he was "most satis-
fied" with the results of two GCS
studies requested by his firm. At both
York Downs G & CC in Toronto and at
continued on page 64
WANTED TO BUY: 9-Hole Golf Course. 18 hole, semi-private. Advocate to superintendent during 1974 season, if qualified. Prefer college grad with experience as an assistant. Send resume to: Gerald L. Hanko, TIMBER TRAILS COUNTRY CLUB, 11350 Plainfield Rd., La Grange, IL 60525.

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EDITOR’S NOTE: Don Cook is president of Donald B. Cook & Associates. His firm, located in New Brunswick, N.J., provides management consulting in industrial engineering, operations research, and systems design and installation. Cook is a registered professional engineer.