R. M. PRICE

SYSTEMS AND SERVICES OVERVIEW 7/14/76

GOOD MORNING!

BEFORE WE GO INTO THE INDIVIDUAL PRODUCT FAMILIES, I WILL COVER THE
OVERALL FINANCIAL OBJECTIVES, BASIC BUSINESS STRATEGY AND PRODUCT
STRATEGY FOR THEM COLLECTIVELY.

I. FINANCIAL OBJECTIVES

AS JOHN LACEY POINTED OUT IN HIS REMARKS, THE PRIMARY GUIDE-
LINE FOR THIS STRATEGIC PLAN HAS BEEN IMPROVEMENT IN OUR
BASIC FINANCIAL RATIOS. FOR THE PRODUCT FAMILIES WHICH MAKE
UP OUR SYSTEMS BUSINESS AND OUR SERVICES BUSINESS, WE STARTED,
THEN, PRINCIPALLY WITH THE OBJECTIVE OF IMPROVING THEIR
COLLECTIVE DEBT-TO-EQUITY RATIO. (CHART 1) LET’S LOOK FIRST
AT EQUITY -- THE FIFTH LINE ON THIS CHART. THE PRO FORMA
EQUITY INCREASE OVER THE PERIOD IS FROM $256 MILLION AT YEAR-
END 1976 TO $496 MILLION BY YEAR-END 1981 -- THAT IS ALMOST
double. NEXT, LET’S LOOK AT DEBT. DEBT IS FURTHER SEGREGATED
FOR PLANNING PURPOSES INTO CCC DEBT AND ”EXTERNAL” OR “BANK”
DEBT. CCC DEBT CAN BE CATEGORIZED IN A SOMEWHAT OVER-
sIMPLIFIED WAY AS THAT ASSOCIATED WITH REVENUE PRODUCING
ASSETS SUCH AS LEASED SYSTEMS AND DATA CENTER EQUIPMENT. AND,
sIMILARLY, BANK DEBT CAN BE CATEGORIZED AS THAT ASSOCIATED
WITH NON-REVENUE PRODUCING ASSETS SUCH AS INVENTORY AND
RECEIVABLES.
SO, THE ACTUAL OBJECTIVE REGARDING DEBT IS FURTHER REFINED TO HAVE CCC DEBT INCREASE WHILE REDUCING BANK OR EXTERNAL DEBT ENOUGH TO OFFSET THIS INCREASE.

THE RESULTS OF OUR PLAN IN THIS REGARD ARE SUMMARIZED HERE. EXTERNAL DEBT WILL DECREASE SOME $147 MILLION AND CCC DEBT WILL RISE BY JUST A BIT LESS THAN THAT AMOUNT. THE LARGEST SINGLE AREA OF INVESTMENT IS THE CBE NETWORK. IN FACT, IT ALONE ACCOUNTS FOR THE TOTAL NET INCREASE IN CCC DEBT. OVERALL, THE DEBT-TO-EQUITY RATIO IS CUT IN HALF. AND, THE RAMIFICATIONS OF THIS WILL BE EVIDENT IN ALL THE REST OF THE FINANCIAL CHARTS I SHOW YOU TODAY.

FOR EXAMPLE: (CHART 2)

TO ACHIEVE THESE GOALS, CASH FLOW OVER THE PLANNING PERIOD IS POSITIVE OR CLOSE TO ZERO WITH ONLY ONE EXCEPTION IN 1978.

NET ASSET ADDITIONS, AS YOU CAN SEE FROM THE CHART, ARE RELATIVELY MODEST THIS YEAR AND NEXT WITH AN ANTICIPATED LARGER INCREASE IN 1978. REVENUE GROWTH OVERALL IS APPROXIMATELY 11% COMPOUNDED ANNUALLY. FOR 1977, HOWEVER THE REVENUE GROWTH IS 9%.

THE PRE-TAX PROFIT RATE WILL RISE FROM THIS YEAR'S EXPECTED 2.6% TO 10% BY 1980.
THE NEXT CHART SHOWS THAT EXPENSE ALLOCATIONS FOR TECHNICAL EFFORT, G&A, INTEREST, ALL WILL DECREASE AS A PERCENT OF REVENUE. EACH WILL DECREASE ABOUT ONE PERCENTAGE POINT FROM CURRENT LEVELS. MARKETING, ON THE OTHER HAND, IS PLANNED TO INCREASE FROM THIS YEAR’S 13.7% TO 14.6% BY 1981.

THIS NEXT CHART SUMMARIZES, THEN, THE EFFECT OF ASSET AND EXPENSE CONTROL PROGRAMS ALONG WITH THE MARKETING PROGRAMS FOR THE REVENUE GROWTH.

RETURN ON ASSETS RISES FROM 2.5 TO 15.1 AND THE ASSET-TO-REVENUE RATIO WILL DECREASE FROM 1.04 TO .76.

FINALLY, RETURN ON INVESTMENT, WHICH IS NOT SHOWN HERE, IMPROVES STEADILY TO A LEVEL OF 22% BY 1981.

II. BASIC BUSINESS STRATEGY

THE PLAN ITSELF, OF COURSE, IS CONCERNED WITH THE PROGRAMS WHICH UNDERPIN THESE NUMBERS WHICH WE HAVE JUST SHOWN. AS YOU WILL SEE IN A FEW MOMENTS IN THE INDIVIDUAL PRODUCT FAMILY PLANS, THERE ARE MYRIAD REVENUE PROGRAMS AND COST REDUCTION PROGRAMS.

JUST LET ME SAY IN OVERVIEW, THAT AS I REVIEWED THE STRATEGIC PLANS, THE QUALITY OF THINKING AND THE SUBSTANCE OF THESE PROGRAMS IS BETTER THAN I HAVE EVER SEEN BEFORE.
SYSTEMS

FOR SYSTEMS, THE SITUATION CAN BE STATED VERY SIMPLY. OUR COMPUTER SYSTEMS BUSINESS MUST BE MADE PROFITABLE AT ITS CURRENT VOLUME OF BUSINESS. CONTROL DATA IS STRONG IN ITS CURRENT MARKETS. YET IN THE PAST, THE INVESTMENTS, PRODUCT STRATEGY, THINKING OF COMPUTER SYSTEMS HAS BOTH EXPLICITLY AND IMPLICITLY BEEN GEARED MORE AROUND A BILLION-DOLLAR BUSINESS THAN THE FIVE-HUNDRED MILLION-DOLLAR BUSINESS IT REALLY IS TODAY. MARKET ANALYSIS, LONG-RANGE FORECASTS, PRODUCT REQUIREMENTS FOR OUR SYSTEMS BUSINESS BASE HAVE BEEN BUILT MORE AROUND "AVERAGE MARKET STATISTICS" -- I.E. IBM -- THAN WHAT IT IS WE HAVE DONE AND CAN DO WELL. BEAR IN MIND THAT WITH THE REQUIREMENTS FOR CONTINUING PRICE/PERFORMANCE IMPROVEMENT FOR THE MARKETPLACE, WE WILL HAVE TO RUN LIKE HELL JUST TO STAY EVEN IN TERMS OF UNITS AND REVENUE DOLLARS. DOING THAT ON AN UNPROFITABLE BASE IS FRUITLESS AND DEMORALIZING. BUT, WE HAVE MADE GREAT PROGRESS OVER THE LAST TWO YEARS AND ARE ON THE VERGE OF A PROFITABLE BUSINESS AT CURRENT VOLUMES.

BEYOND THAT, HOWEVER, IT IS CLEAR THAT ADDITIONAL INCREMENTAL MARKETS ARE AVAILABLE TO SYSTEMS. AND, ON THE BASIS OF THESE INCREMENTAL MARKETS, SYSTEMS WILL BECOME NOT ONLY PROFITABLE BUT AN ATTRACTIVE PART OF OUR BUSINESS. THESE INCREMENTAL MARKETS WILL COME -- MUST COME FOR THE MOST PART -- AS SPIN-OFFS OF OUR SERVICES MARKETS. CBE OFFERS SUCH A POTENTIAL. DATA COMMUNICATIONS NETWORKS ARE SUCH A MARKET.
INFORMATION EXCHANGE AND COMMUNICATION VIA COMPUTER DATA BASES (I.E. TECHNOTECH, SKILLTECH, FIRMTECH) IS SUCH A MARKET.

ADDITIONAL STRENGTH IS NOW FLOWING TO OUR SYSTEMS BUSINESS FROM INSTRUMENTS AND CONTROLS AND THAT, OF COURSE, IS THE EXACT OPPOSITE OF WHERE WE WERE TWO YEARS AGO.

SERVICES

MOVING FROM SYSTEMS TO SERVICES, WE FIND A QUITE DIFFERENT BASIC STRATEGY. OUR PRINCIPAL AREA OF STRATEGIC EMPHASIS FOR GROWTH IS SERVICES. THIS NEXT CHART DEMONSTRATES THAT VERY WELL. ON THIS CHART, I HAVE EXCLUDED SBC WHICH WOULD MAKE THE RESULTS EVEN MORE DRAMATIC. BUT JUST CONSIDERING OUR HISTORIC BASE OF SYSTEMS AND SERVICES, YOU CAN SEE THAT CROSS-OVER IN REVENUE VOLUME WILL OCCUR NEXT YEAR.

THE CHART ALSO SHOWS ANOTHER ESSENTIAL FEATURE OF OUR PLAN IN THAT WE ARE CONTINUING TO EMPHASIZE OVER THE TOTAL PLANNING PERIOD GROWTH IN SERVICES AND A CONSEQUENT HEAVIER INVESTMENT IN ASSETS FOR SERVICES.

1975 AND 1976 HAVE BEEN YEARS OF CONSOLIDATION FOR SERVICES -- "GETTING OUR ACT TOGETHER" IF YOU WILL. WE HAVE OUR FEET UNDER US NOW SO TO SPEAK AND ARE POISED FOR MORE RAPID AND PROFITABLE GROWTH IN 1977 AND THE YEARS BEYOND.
THE EMPHASIS, AS YOU WILL SEE WHEN I COVER SERVICES A LITTLE LATER, IS ON NEW NETWORK APPLICATIONS AND ON NEW DEDICATED APPLICATION SERVICES. COUPLED WITH THAT, OF COURSE, IS EMPHASIS ON THE MOST POWERFUL AND COMPREHENSIVE NETWORK DELIVERY SYSTEM ANYWHERE.

--- PAUSE ---

SUMMARY OF BUSINESS STRATEGY FOR BOTH SERVICES AND SYSTEMS

THE BUSINESS STRATEGY COMPRISSES A SET OF MARKET-AREA PROGRAMS. THESE MARKET-AREA PROGRAMS BUILD UP TO THE TOTAL STRATEGIC PLAN. THE PROGRAMS IN EVERY INSTANCE START WITH TRADITIONAL AREAS OF STRENGTH AND ARE CONCERNED IN THAT REGARD WITH “PROTECT”, “ENHANCE”, “MAINTAIN”, AND “IMPROVE” CHARACTERISTICS. ADDED TO THAT INCREMENTALLY ARE NEW MARKET-AREA PROGRAMS FOR GROWTH OF THE BUSINESS.

AND, TO CARRY OUT THESE PROGRAMS, THERE WILL BE BOTH ABSOLUTELY AND AS A PERCENT OF REVENUE MORE MONEY SPENT ON OUR MARKETING THAN EVER BEFORE.

--- PAUSE ---

III. PRODUCT STRATEGY

BEHIND THESE BUSINESS AND MARKET STRATEGIES COMES FINALLY, THEN, OUR PRODUCT STRATEGIES. I WON’T ATTEMPT TO LIST AND
DESCRIBE EACH OF THESE IN OVERVIEW. THEY ARE BEST LOOKED AT INDIVIDUALLY. BUT I WILL SAY THAT MORE THAN EVER BEFORE THE PRODUCT STRATEGIES ARE FOCUSED ON AND SUPPORTIVE OF MARKET-AREA PROGRAMS. THEY ARE FIRMLY ROOTED IN WHO WE ARE AND WHAT WE HAVE AS PRODUCTS TODAY AND THEY EVOLVE CONTINUOUSLY OVER THE PERIOD TOWARD EVEN MORE COST/PERFORMANCE EFFECTIVE PRODUCTS.

NOW, I WILL MOVE ON AND COVER EACH PRODUCT FAMILY IN TURN.
1977-1981 LONG RANGE STRATEGY

EDP SYSTEMS SLIDE PRESENTATION NARRATIVE

1 IT IS CLEAR THAT OUR CUSTOMER BASE MUST BE CENTRAL TO OUR EDP SYSTEMS STRATEGY. THE 3000, 6000/CYBER 170 AND CYBER 76 PRODUCTS REPRESENT OVER 90 PERCENT OF OUR PRESENT REVENUE IN EDP SYSTEMS.

THE KEY WORD IN THE 2ND STRATEGY STATEMENT IS "EVOLVE". IT IS OBVIOUS THAT THE SUCCESSOR PRODUCT LINES MUST AND WILL BE COMPATIBLE WITH OUR PRESENT LINE. IT IS MORE IMPORTANT TO NOTE THAT WE WILL GET TO THIS NEW LINE THROUGH ENHANCEMENT OF THE 170 OVER THE PERIOD OF 1977-1982. OVER THAT PERIOD THERE WILL BE A GRADUAL AND CONTINUOUS EVOLUTION THROUGH INTRODUCTION OF NEW SOFTWARE AND HARDWARE MODULES.

2 RETAINING OUR PRESENT CUSTOMERS IS IMPORTANT NOT ONLY FOR FUTURE PRODUCT APPLICATIONS, BUT ALSO FOR MAINTAINING A SOLID LEASE BASE WITH OUR EXISTING PRODUCTS. OUR 6000/CYBER 70 RETENTION PROGRAM AND THE COMPANION CYBER 71 PRODUCTS ARE AIMED AT MINIMIZING RETURNED GOODS INVENTORIES.

AS I MENTIONED BEFORE, AS A PART OF EVOLVING TO THE NEW PRODUCT LINE AND TO STRENGTHEN OUR PRESENT POSITION, WE WILL BROADEN AND IMPROVE OUR PRESENT PRODUCT OFFERING. THE CYBER 176 WILL REPLACE THE CYBER 76 AND BECOME A COMPATIBLE PART OF THE 170 LINE. WE WILL BE INTRODUCING THE CYBER 171 AS A NEW
ENTRY-LEVEL PRODUCT IN 1977. IMPROVEMENTS IN STAR, NEW TERMINALS, NEW PERIPHERALS, AND PARTICULAR EMPHASIS ON COMMUNICATIONS INCLUDING HOST PROCESSORS AND COMMUNICATIONS PROCESSORS WILL OCCUR OVER THE NEXT FEW YEARS.

3. WE WILL CONTINUE TO EMPHASIZE OUR TRADITIONAL SCIENTIFIC AND ENGINEERING APPLICATIONS. BEYOND THAT PRIMARY ATTENTION WILL BE GIVEN TO NEW APPLICATIONS OF OUR SYSTEMS IN THE SPECIFICALLY IDENTIFIED GROWTH AREAS OF EDUCATION, PETROLEUM, POWER NETWORK CONTROL, COMMUNICATIONS AND DATA BASE APPLICATIONS.

4. WE ARE TARGETING OUR TECHNOLOGY INVESTMENTS IN EDP SYSTEMS AT BETWEEN 60 TO 70 MILLION DOLLARS PER YEAR. MAJOR EFFORT ON OUR EXISTING SOFTWARE WILL RESULT IN IMPROVEMENTS ALLOWING THE CURRENT BATCH AND TIMESHARING VARIANTS OF NOS TO EVOLVE TO THE SUCCESSOR OPERATING SYSTEM. THE ADVENT OF NEW TECHNOLOGY SUCH AS LSI WILL ALLOW US TO DEVELOP NEW HARDWARE WITH LARGER MEMORIES, BETTER COST PERFORMANCE AND STATE-OF-THE-ART SECURITY FEATURES.

5. OUR MAJOR STRENGTHS LIE IN OUR BROAD PRODUCT LINE OFFERING (CYBER 171 THROUGH 176) WHICH TODAY CONTAIN THE LATEST HARDWARE TECHNOLOGY, AND EQUALLY IMPORTANT USE FIELD PROVEN SOFTWARE. WE ALSO HAVE THE HIGHEST PERFORMANCE COMPUTERS ON THE MARKET IN THE CYBER 76 AND STAR, WHICH MAINTAIN OUR GOOD IMAGE IN THE SUPER-COMPUTER MARKET. AND WE CLEARLY HAVE PRODUCT SUPERIORITY IN SCIENTIFIC APPLICATIONS.
OUR MAJOR CHALLENGE RELATES TO THE DEVELOPMENT OF NEW APPLICATIONS, AND IN PROVIDING THE APPLICABLE HARDWARE/SOFTWARE PRODUCTS AND MARKETING EXPERTISE TO SUPPORT THESE APPLICATIONS.

6 REVENUE BY INDUSTRY

IN LOOKING AT REVENUE BY INDUSTRY FOR OUR EDP SYSTEMS BUSINESS, THE SPECIFICALLY IDENTIFIED GROWTH OF NEW APPLICATIONS IN PETROLEUM, EDUCATION, AND COMMUNICATIONS, MORE THAN OFFSET THE DECREASE IN REVENUE IN THE GOVERNMENT MARKETS.

PAUSE - TO LOOK AT CHART

7 GROWTH HIGHLIGHTS

AS STATED BEFORE, OUR OBJECTIVE IN EDP SYSTEMS IS TO MAKE A PROFIT ON A RELATIVELY LEVEL REVENUE BASE. AS YOU CAN SEE, REVENUES ONLY INCREASE ON THE AVERAGE BY ABOUT 3% PER YEAR. PRE-TAX PROFITS ON THE OTHER HAND INCREASE TO SOME 10% OF REVENUE FROM THIS YEAR'S PROJECTED LOSS POSITION.

ASSETS DECREASE BY SOME 18 MILLION DOLLARS OVER THE PLAN PERIOD RESULTING IN A SIGNIFICANT POSITIVE CASH FLOW - WHICH IS AT THE BOTTOM OF THE CHART. TOTAL CASH FLOW FROM OUR SYSTEMS BUSINESS FOR THIS YEAR AND THE NEXT 5 YEARS IS 80 MILLION DOLLARS.
8 EXPENSE ANALYSIS

WITH THE EXCEPTION OF MARKETING EXPENSE, WHICH IS PLANNED TO INCREASE A HALF A PERCENT OR SO - ON A PERCENT OF REVENUE BASIS - ALL EXPENSES AS WELL AS TOTAL EXPENSES, WILL DECREASE AND WHAT MAKES THIS POSSIBLE IS ONCE AGAIN - NOT WILD REVENUE EXPECTATIONS BUT A MORE COHERENT HARDWARE AND SOFTWARE PRODUCT STRATEGY. INTEREST EXPENSE R&D IS A DIRECT RESULT OF PLANNED ASSET PROGRAMS.

9 PERFORMANCE INDICATORS

ALL PERFORMANCE INDICATORS AS SHOWN ON THIS CHART IMPROVE OVER THE PLAN PERIOD - THE COMBINATION OF REDUCED ASSETS TO GENERATE A GIVEN BASE REVENUE PLUS THE IMPROVEMENT IN GROSS PROFIT DRAMATICALLY INCREASE THE PROFIT RETURNED AND MOVES THE ROA TOWARD A MORE ACCEPTABLE LEVEL.
INSTRUMENTS & CONTROLS


2. Electric Utilities

Considering Control Data's current position and total potential in the Electric Utilities business, revenue is expected to grow by 30% per year.

Profits could grow even more dramatically, but significant reinvestment in standard products must be done to assure long term growth.

Strategy highlights of the plan include:

1. Standardization of application software and hardware products to improve our competitive position and profitability -

2. Expansion of application software used in Electric Utility control -

3. Strengthening the application capability of Autocon by the addition of more application specialists. But, more importantly, also by concentrating existing application capability and further utilizing other corporate resources in development and marketing.
4. FINALLY THERE IS EXPANSION OF OUR OVERSEAS'S MARKET.

3 WATER/WASTE WATER

The total long range potential of the Water/Waste Water business is not entirely determined. But what is clear is that we’ll be able to accomplish a moderate improvement in revenue and profit. The strategies shown on the slide are expected to improve our position in this business.

- PAUSE -

4 VALVES

The valve business is carried out by Kerotest, whose reputation in the market is excellent. Currently, revenue and profit are good, and we’re confident that a 10% revenue growth, and a 15% pre-tax profit, can be maintained. Some major strategies in this business are shown on the slide.

- PAUSE -

5 INSTRUMENTS

The Instruments business is being carried out by Electrofact in Holland. The business has been poor and consistently in a moderate loss condition. Norm Skinner says the most encouraging part of this business is the fact that there are so many problems,
THAT IT'S HARD NOT TO FIX SOMETHING. IN SHORT, WE EXPECT TO BE ABLE TO IMPROVE THIS BUSINESS ENOUGH FOR IT TO SHOW A MODEST PROFIT OVER THE FIVE YEAR PLAN PERIOD. THE MAJOR STRATEGIES TO BE IMPLEMENTED ARE SHOWN ON THE SLIDE.

O.K. LET'S MOVE ON TO THE MARKET AREA CHART.

6 REVENUE GROWTH

IT'S OBVIOUS THAT THE MAJOR GROWTH IN THE INSTRUMENTS & CONTROLS PRODUCT FAMILY WILL BE IN THE POWER NETWORK CONTROL BUSINESS.

7 GROWTH HIGHLIGHTS

THE AVERAGE REVENUE GROWTH IS 18% WITH NET PROFIT BEFORE TAX GROWING TO OVER 10% OF REVENUES IN 1981. THERE IS A MINIMAL ASSET INVESTMENT TO COVER THE REVENUE GROWTH AND CUMULATIVE CASH FLOW WILL BE POSITIVE FOR EACH OF THE FIVE YEARS EXCEPT IN 1978.

8 EXPENSE ANALYSIS

THE INCREASE IN TECHNICAL EFFORT EXPENSE IS PRIMARILY THE INCREASED R&D FOR THE POWER NETWORK CONTROL BUSINESS - THE REMAINDER OF THE EXPENSES DECREASE AS A PERCENT OF REVENUE.
WHILE ALL OF THE PERFORMANCE RATIOS IMPROVE, THE MOST DRAMATIC CHANGE IS IN THE ROA, WHICH INCREASES TO OVER 30%.
1 AEROSPACE OPERATIONS FACES A CHALLENGE IN 1976 AND 1977 TO OBTAIN ORDERS FOR NEW PROGRAMS AS SEVERAL MAJOR PRODUCTION PROGRAMS ARE PHASING DOWN. THE CHALLENGE WILL BE TO MAINTAIN A SLIGHT GROWTH FROM THE $100 MILLION BUSINESS LEVEL WHILE IMPROVING PROFITS AND ASSET TO REVENUE RATIOS RESULTING IN A POSITIVE CASH FLOW.

1 THE GENERAL STRATEGY IS TO CONTINUE TO PURSUE QUALITY BUSINESS IN OUR MAIN STRENGTH AREAS WITH NO CHANGES IN MARKET DIRECTION. EMPHASIS WILL BE PLACED IN THE FOLLOWING PRODUCT/MARKET AREAS -

- PAUSE -

2 THE GROUND TACTICAL DATA SYSTEMS.

- PAUSE -

3 THE OCEAN SYSTEMS.

- PAUSE -

4 AIRBORNE SYSTEMS.

5 AND IN ADDITION, OUR STRATEGY INCLUDES:
- Expansion of Image Processing

- Expansion of Spaceborne Systems

- And to increase militarized peripherals such as the 640 disk, and extended core memory.

6 Revenue by Business Segment

This chart shows revenue by major program. The real significance of the chart is that the new market programs must be implemented successfully to fill in the revenue gap being left by the older programs shown at the bottom of the chart. As you can see, current programs have in total greater potential than the revenue level to which we are planning.

7 Growth Highlights

The annual average revenue increase for aerospace is 3%. Profits improve gradually. Minimal asset investment is being made which results in a slight positive cash flow each year.

8 Performance Ratios

All performance ratios improve slightly with ROA increasing to 10% in 1981.
ENGINEERING SERVICES

HISTORICALLY ENGINEERING SERVICES' REVENUES HAVE GROWN IN EXCESS OF 10% A YEAR AND GROSS PROFIT MARGINS HAVE BEEN 21% TO 24%. MAINTENANCE OF EDP SYSTEMS AND PARTS SALES CONTRIBUTED MOST HEAVILY TO THE REVENUE AND PROFIT INCREASES UNTIL THE LATTER PART OF 1975. BUT THE EDP SYSTEMS BUSINESS HAS BEEN FLAT THE LAST COUPLE OF YEARS. ALSO A LARGE PORTION OF THE OEM PARTS SALES WENT WITH THE CPI/MPI JOINT VENTURE COMPANIES. ACCORDINGLY, THIS YEAR'S PLAN FOR ENGINEERING SERVICES SHOWS AN EROSION IN REVENUES AND PROFITS FOR THE BASE BUSINESS. THERE ARE SEVEN MAJOR STRATEGIES DEVELOPED TO OFFSET THIS EROSION; THREE TO INCREASE REVENUES AND FOUR TO EFFECT COST REDUCTIONS -

1. THE FIRST STRATEGY IS THE THIRD PARTY MAINTENANCE COUNTER STRATEGY WHICH WILL CONTAIN THE EXPECTED EROSION OF THE MAINTENANCE BASE, PRESERVE MARKET SHARE AND WIN BACK SOME OF THE BUSINESS THAT WE HAVE ALREADY LOST.

2. THE OTHER REVENUE RELATED STRATEGIES ARE TO EXPAND THE COMMA AND SYNTONIC BUSINESS. INCLUDED IN THE COMMA GROWTH PLAN IS TO: OPEN UP 14 NEW COMMA CITIES SELECTED ON THE BASIS OF EXISTING CDC END USER CUSTOMERS; EXPAND INTERNAL SERVICES FOR ALL CDC OWNED IBM EQUIPMENT; EXPAND EXTERNALLY IN THE LEASING COMPANY MARKET AND EXPAND SERVICES TO INCLUDE MAINTENANCE OF IBM 370 AND SYSTEM 3'S. INCLUDED IN THE SYNTONIC GROWTH PLAN IS THE MINI-COMPUTER MAINTENANCE PLAN.
2 THE RESOURCE CENTER PLAN IS A COST REDUCTION STRATEGY - THE BASIC PREMISE HERE IS TO SHIFT FROM THE TRADITIONAL ON-SITE TO AN ON-CALL MOBILE MAINTENANCE DELIVERY MODE WHICH WILL IMPROVE PRODUCTIVITY AND UTILIZATION OF BOTH PEOPLE AND ASSETS.

3 THE EDUCATION, PERIPHERAL PRODUCTS, AND LOGISTICS PLANS ARE ALSO COST REDUCTION STRATEGIES. AS YOU CAN SEE FROM THE INGREDIENTS, WE HAVE OUR WORK CUT OUT FOR US BUT THESE STRATEGIES WILL ASSURE THAT WE REMAIN COMPETITIVE AND PROFITABLE IN THE ENGINEERING SERVICES BUSINESS.

4 REVENUE GROWTH

THE CHART SHOWS THE EROSION TO THE BASE BUSINESS THAT I MENTIONED PREVIOUSLY - IT ALSO SHOWS THAT THE THIRD PARTY COUNTER STRATEGY, COMMA AND SYNTONIC GROWTH ARE IMPORTANT STRATEGIES FOR REVENUE INCREASES.

5 G.P. IMPROVEMENT

IN LOOKING AT THE GROSS PROFIT IMPROVEMENT FOR ENGINEERING SERVICES, IT IS ALSO APPARENT THAT THE COST REDUCTION STRATEGIES PLAY AN IMPORTANT ROLE IN RETAINING AND IMPROVING GROSS PROFIT IN THE 21 - 24% RANGE. AS YOU CAN SEE, THE EDUCATION, RESOURCE CENTER, AND PERIPHERAL PRODUCTS STRATEGIES ARE WORTH 3% G.P.

PAUSE - GO TO CHART
6 GROWTH HIGHLIGHTS

Revenue growth averages 8% annually - the decrease in profits in the early years of the plan are the result of the decrease in base maintenance and parts profits which will be overcome with the counter strategies in the later years. Assets increase about $10 million a year and cash flow is slightly negative in each year except for 1981.

7 EXPENSE ANALYSIS

Expenses are planned to stay about the same as a % of revenue with the exceptions of interest expense which will decline.

8 PERFORMANCE INDICATORS

Here let's look at the asset to revenue ratio which improves by 8 cents from 76¢ to 68¢ of assets to generate a dollar of revenue - this explains the condition shown on the previous slides - an increase in assets but a decrease in interest expense - in other words a much better leveraged position than we have had previously in engineering services.

- PAUSE -
PSD

PSD'S MAIN BUSINESS ORIENTATION IS THE DEVELOPMENT OF AN EXTERNAL CONSULTING SERVICES CLIENT BASE, AND THE GENERATION OF EXTERNAL REVENUES AND PROFITS IN SUPPORT OF OUR SYSTEMS AND DATA SERVICES BUSINESSES.

1. THE MAJOR STRATEGIES INVOLVED ARE TO PURSUE FOUR BASIC SERVICES: CONSULTING SERVICES, PROGRAMMING SERVICES, APPLICATIONS PACKAGES, AND SUPPORT SERVICES IN THE TRADITIONAL CDC SYSTEMS AND CYBERNET MARKETS. THE IAT MARKET WILL ALSO BE INCREASED THROUGH PUBLIC SEMINARS AND CONTRACT COURSES.

THE CONSULTING FIRM CONCEPT IS THE CENTRAL ELEMENT OF PSD'S STRATEGY AND THE PLAN CALLS FOR EXPANSION FROM THE CURRENT BASE OF ELEVEN FIRMS -

2. THE CURRENT FIRMS ARE SHOWN HERE ALONG WITH THE RESPONSIBLE REGION. RESEARCH INTO POTENTIAL NEW FIRMS IS CURRENTLY BEING CONDUCTED SO THAT CANDIDATE FIRMS CAN BE PRIORITIZED BY MARKET POTENTIAL AND CORPORATE NEED. SOME CANDIDATES FOR NEW FIRMS ARE EARTH SCIENCES, GRAPHICS, ELECTRICAL ENGINEERING, FACILITIES MANAGEMENT, AND MILITARY SCIENCES.

3. REVENUE

THIS CHART ONCE AGAIN SHOWS THE MAKE-UP OF REVENUE BY PROGRAM. THE DOTTED LINE REPRESENTS THE REVENUE LEVEL ACTUALLY INCLUDED
IN THE PLAN SO ONCE AGAIN YOU HAVE A SITUATION IN WHICH THE PLANNED PROGRAMS HAVE POTENTIALLY GREATER REVENUES THAN THOSE TO WHICH WE ARE PLANNING.

4 **GROWTH INDICATORS**

REVENUE GROWTH IN THE PSD PLAN IS ABOUT 12% ANNUALLY. ASSETS GROW MODESTLY TO COVER THE INCREASE IN RECEIVABLES GENERATED FROM THIS REVENUE GROWTH. PSD WILL GENERATE A POSITIVE CASH FLOW FOR EACH YEAR.

5 **EXPENSES**

FOR THE MOST PART EXPENSES REMAIN AT CURRENT LEVELS.

6 **PERFORMANCE INDICATORS**

NOTE ON THIS SLIDE THAT THE ASSET TO REVENUE RATIO DECLINES FROM 28¢ TO 24¢ BY 1981. THIS COUPLED WITH THE ADDED PROFITABILITY MEANS THIS ROA INCREASES TO A HEALTHY 36% BY 1981.
THE MISSION OF EDUCATION SYSTEMS AND SERVICES IS TO DEVELOP AND IMPLEMENT HIGH QUALITY AND COST JUSTIFIABLE COMPUTER BASED EDUCATION AND INFORMATION SERVICES IN THE GLOBAL MARKETPLACE.

WE HAVE TWO MAJOR STRATEGIES OUTLINED FOR EDUCATION SYSTEMS AND SERVICES -

1. ESTABLISH THE CDC PLATO SERVICE NETWORK WITH BROAD GEOGRAPHIC DISTRIBUTION - THE U.S. MARKET WILL EMPHASIZE INDUSTRY, GOVERNMENT AND LEADING UNIVERSITIES. WE BELIEVE THIS IS WHERE CURRICULUM AND INFORMATION SERVICES WILL BE MOST READILY DEVELOPED.

THE PLAN FOR THE SERVICES NETWORK ITSELF CALLS FOR DECREASING PLANT COSTS, I.E., IN TERMINALS, PROCESSORS, LARGE MEMORIES AND COMMUNICATIONS COSTS WHILE AT THE SAME TIME ENHANCING PERFORMANCE FOR THE TOTAL SYSTEM.

THIS WILL BE COUPLED WITH AN ENLARGING CURRICULUM BASE AND A COORDINATED MARKETING EFFORT WITH COMMERCIAL CREDIT'S CB EDUCATION COMPANY TO ALLOW RAPID EXPANSION OF THE NETWORK.

- PAUSE -

WHILE EDUCATION EXPENDITURES IN THE U.S. ARE OVER $100 BILLION A YEAR AND INCREASING 8% ANNUALLY, THE RATE OF INCREASE IN INTERNATIONAL MARKETS WILL BE EVEN HIGHER.
2 ACCORDINGLY, THE SECOND BASIC STRATEGY IS TO ENTER SELECTED INTERNATIONAL MARKETS WHERE LARGE NATIONAL CONTRACTS CAN BE NEGOTIATED.

- PAUSE -

3 THE FINANCIALS FOR EDUCATION DEAL ONLY WITH SERVICE RELATED REVENUE BUT I WOULD LIKE TO POINT OUT THAT CONSIDERABLE REVENUE AND COMPUTER SYSTEMS (UNITS) CAN BE ATTRIBUTED TO THE CBE EFFORT, INCREASING FROM ONE UNIT IN 1976 TO FOUR IN 1980 - THIS REVENUE AND PROFIT IS INCREMENTAL TO THE TRADITIONAL EDUCATION INDUSTRY SEGMENT OF EDP SYSTEMS AND IS INCLUDED IN THE SYSTEMS PLAN.

4 IN LOOKING AT EDUCATION SERVICES REVENUE GROWTH YOU CAN SEE THAT IT COMPRISSES SEVERAL ELEMENTS. THE 1981 FIGURE INCLUDES 13 MILLION FROM INTERNATIONAL GOVERNMENT CONTRACTS; 124 MILLION FROM EXTERNAL CBE TERMINAL USERS; AND 6 MILLION FROM COMMERCIAL CREDIT FOR THE PORTS WHICH THEY WILL USE IN THEIR LEARNING CENTERS AND IN CDI. THIS LATTER REVENUE IS THAT WHICH COMES TO THE COMPUTER BUSINESS AS A "WHOLESALE" OF CBE NETWORK POWER TO COMMERCIAL CREDIT. COMMERCIAL CREDIT WILL, IN TURN, RETAIL THIS NETWORK POWER THROUGH THE LEARNING CENTERS AND CDI. THIS RETAIL INCOME TO COMMERCIAL CREDIT AMOUNTS TO ANOTHER $90 MILLION AND THIS IS SHOWN BY THE DOTTED LINE ON THE CHART. ALL IN ALL, THEN, CONTROL DATA CORPORATION EXPECTS TO REALIZE $233 MILLION FROM EDUCATION SERVICES IN 1981.
5 GROWTH

REVENUE FOR EDUCATION SERVICES IS PLANNED TO GROW AT AN AVERAGE ANNUAL RATE OF 70% - OF COURSE, STARTING FROM PRACTICALLY NOTHING - IT IS PLANNED THAT WE CAN BREAK EVEN IN 1977 AND INCREASE PROFITS AFTER THAT. THE SIGNIFICANT ADDITION IN ASSETS IS FOR 13,000 LEASE TERMINALS AND THE CBE SERVICE CENTER SYSTEMS. ALTHOUGH THE RATE OF INVESTMENT CAN BE MANAGED TO MARKET DEVELOPMENT AND MAY VARY FROM THE PLAN AS SHOWN, IT IS MOST REALISTIC TO EXPECT A LARGE NEGATIVE CASH FLOW FOR AT LEAST THE NEXT FIVE YEARS.

6 EXPENSES

I WOULD LIKE TO COMMENT ON TWO LINES ON THIS SLIDE - TECHNICAL EFFORT AND MARKETING. TECHNICAL EFFORT IS HEAVILY FRONT END LOADED. THIS ALONG WITH A RAPID INCREASE IN REVENUES PRODUCES A RAPIDLY DECLINING T.E. TO REVENUE RATIO ALTHOUGH THE ABSOLUTE LEVEL OF EXPENSE REMAINS FAIRLY CONSTANT AFTER THIS YEAR.

MARKETING ON THE OTHER HAND IS REALLY JUST BEGINNING AND WILL NOT REACH A STABLE LEVEL UNTIL 1981 OR 1982.

7 PERFORMANCE RATIOS

THE PERFORMANCE RATIOS ALL IMPROVE - AS YOU CAN SEE, IT IS
PLANNED THAT THIS BUSINESS OPERATE AT A ASSET TO REVENUE RATIO OF 90+ CENTS. A CHANGE IN THE ASSUMED 70/30 LEASE/PURCHASE MIX OF TERMINALS COULD REDUCE THIS ASSET TO REVENUE RATIO SIGNIFICANTLY.
DATA SERVICES

THE DATA SERVICES PRODUCT FAMILY INCLUDES BOTH SBC, AND THE DATA SERVICES BUSINESS OF SYSTEMS AND SERVICES COMPANY. I WILL FIRST TALK ABOUT S&S DATA SERVICES AND THEN COVER SBC. THE SUMMARY FINANCIAL CHARTS I WILL BE SHOWING YOU INCLUDE BOTH.

1 DATA SERVICES ITSELF IS DIVIDED INTO TWO MAJOR SEGMENTS - NETWORK SERVICES AND APPLICATIONS SERVICES. NETWORK SERVICES OFFERS A COMMON SET OF SCIENTIFICALLY ORIENTED TIMESHARING AND BATCH APPLICATIONS TO USERS WORLDWIDE. APPLICATIONS SERVICES AS THE NAME IMPLIES ARE DEDICATED DATA SERVICES FOR SPECIFIC INDUSTRY APPLICATIONS. APPLICATIONS SERVICES IS IN TURN DIVIDED INTO THOSE DIVISIONS WHICH ARE RELATIVELY MATURE AND OF PROVEN PROFIT POTENTIAL AND THOSE DIVISIONS WHERE PROFITABILITY HAS YET TO BE PROVED. THE LATTER WE REFER TO AS DEVELOPMENTAL SERVICES.

2 THE MAJOR STRATEGIES IN NETWORK SERVICES ARE TO INVEST IN NEW APPLICATIONS PRODUCTS, EXPAND THE MARKETING RESOURCE CAPABILITY, AND INCREASE AND IMPROVE OUR NETWORK DELIVERY SYSTEM. THIS NETWORK "PLANT" IS COMMON TO THAT OF SBC AND I'LL COVER THAT IN A MOMENT. PRICE INCREASES ARE ALSO AN INTEGRAL PART OF OUR STRATEGY TO ENHANCE PROFITABILITY IN THE FACE OF INFLATIONARY COSTS.
3 APPLICATIONS UNIQUENESS WILL BE PURSUED FOR ITS POTENTIAL FOR STRONG PROFITABLE REVENUE GROWTH - THE UTILITIES SERVICE CENTER AND OTHER SERVICE CENTERS ARE PART OF THIS STRATEGY. ALSO, THE MULTI-NATIONAL MARKET OFFERS US AN EXCELLENT OPPORTUNITY.

4 THE STRATEGY FOR APPLICATIONS SERVICES IS TO INVEST IN THOSE ENTITIES WHERE THE POTENTIAL RETURN IS REASONABLY ASSURED AND PREDICTABLE FROM PAST PERFORMANCE - A $4 MILLION INVESTMENT WILL BE MADE IN ARBITRON TO INSURE A SOLID POSITION IN THE TV RATING MARKET - ADDITIONAL INVESTMENTS WILL BE MADE IN BTSI AND SRI.

OUR CURRENT DEVELOPMENTAL SERVICES WILL BE CONTINUED AND EXPANDED WITH NEW APPLICATIONS SERVICES OFFERINGS WHICH ARE WITHIN COMPLIMENTARY MARKETS OR ARE LOGICAL EXTENSIONS OF THE EXISTING PRODUCTS. MORE SPECIFICALLY, SPORTS & ENTERTAINMENT WILL LEVERAGE THEIR TICKETING DISTRIBUTION CAPABILITIES BY DEVELOPING AN ARENA TICKETING SYSTEM - AUTOMATED WAGERING WILL EXPAND WHERE THE RISK IS REASONABLE - COMPUNET WILL CONTINUE TO DEVELOP ITS SERVICE FOR TV AND RADIO STATIONS. WITH REGARD TO COMPUNET WE WILL MANAGE TO MINIMIZE ASSET INVESTMENTS UNTIL THE BASIC BUSINESS CONCEPT IS PROVEN SUCCESSFUL.

5 THE MAJOR STRATEGIC OBJECTIVE FOR SBC IS REVENUE GROWTH - THIS WILL BE ACHIEVED THROUGH CONTINUED EMPHASIS ON THE TRADITIONAL PRODUCT LINES OF DPS AND TIME-SHARING SERVICES. THE NEW VENTURES IN RETAIL AND MANUFACTURING FOR DPS AND IN BANKING AND MANUFACTURING FOR TSS WILL ADD TO THE EXPANSION OF THE BUSINESS.
IT IS ALSO NOTEWORTHY TO MENTION THE RECENTLY ANNOUNCED JAPANESE PROGRAM, WHICH IS PLANNED TO CONTRIBUTE SIGNIFICANTLY TO THE REVENUE GROWTH.

THE STRATEGIC OBJECTIVES OF THE NETWORK DEVELOPMENT AND OPERATIONS UNITS ARE THE CONTINUED CREATION OF A SUPERIOR DATA SERVICES PROCESSING PLANT ENCOMPASSING ENHANCED COMPUTER POWER, TERMINAL DIVERSIFICATION AND GEOGRAPHIC COVERAGE.

GRAPHICALLY THIS CONCEPT IS ILLUSTRATED ON THIS CHART -

1. GEOGRAPHICALLY DISPERSED REMOTE INTELLIGENT CONCENTRATORS PROVIDE THE ACCESS INTERFACE TO A SHARED NETWORK FACILITY FOR A WIDE RANGE OF ASYNCHRONOUS AND SYNCHRONOUS TERMINALS, WHICH INCLUDES COMPUTERS AND THEIR ASSOCIATED INPUT/OUTPUT UNITS, LOW SPEED INTERACTIVE TERMINALS AND BATCH TERMINALS.

2. CUSTOMER DATA FROM THE REMOTE CONCENTRATORS FLOWS OVER A VARIETY OF COMMUNICATIONS FACILITIES TO A COMMUNICATION NETWORK PROCESSOR (CNP) WHICH IN TURN ROUTES THE USERS DATA TO THE APPROPRIATE SERVICE OR TO ANOTHER CNP (2A) FOR DISTRIBUTION TO ITS LOCAL SERVICE PROCESSORS.

3&4. IN SOME CASES, THE TRAFFIC IS ROUTED FROM THE CNP TO LOCAL PROCESSORS VIA CHANNEL TO CHANNEL LINKAGE AS IS DEPICTED BY THE BACKGROUND CALL/370 AND CALL/PLUS SYSTEMS.
5, 6, 7. In other cases, the traffic is routed from the receiving CNP to remote centers as is the current situation for Compu/Net and Kronos in both the Eastern Cluster Center and the Minneapolis Internal Processing Centers. Focus traffic is routed to the Campbell Center directly now, but will be routed through a second CNP (2A) when the network loading demands the additional resource.

8. Current time-sharing services and the future processing plans for the DPS application set need remote printing and input facilities. These capabilities will be provided by linkage from the 31 DPS branch locations through the network. In many cases, existing DPS systems will be front ended with a device so that they can perform remote concentration as well as remote batch input/output.

9. Communications facilities throughout the network gradually upgraded as domestic satellite facilities become available as they are now available to Europe and Japan.

8 Revenue Growth

The revenue plan is easy to remember. It doubles — from $250 million to $500 million. Of the increase $50 million comes from developmental and applications services. Network and SBC each contribute about $100 million to the growth.
GROWTH

AVERAGE ANNUAL REVENUE INCREASE IS ABOUT 15%. NET PROFIT INCREASES TO OVER 10% OF REVENUES. WITH THE EXCEPTION OF 1977, THE INVESTMENT IN ASSETS IS MORE THAN OFFSET BY PROFITS GENERATED SO THAT AS OPPOSED TO THE LAST FIVE YEARS THE NEXT FIVE YEARS WILL SEE A POSITIVE CASH FLOW.

EXPENSES

ALL EXPENSES AS A % TO REVENUE DECREASE.

RATIOS

THE PERFORMANCE INDICATORS ALL IMPROVE OVER THE PLAN PERIOD TO SATISFACTORY AND ACCEPTABLE LEVEL.
SUMMARY

WITH DATA SERVICES I HAVE CONCLUDED THE INDIVIDUAL PRODUCT FAMILY REVIEW. IN CLOSING LET ME RETURN FOR JUST A MOMENT TO A FEW WORDS OF OVERVIEW. OUR LARGEST AREA OF INVESTMENT IS THE EDUCATION CBE NETWORK. THIS IS FOLLOWED BY DATA SERVICES. PERHAPS THE MAGNITUDE OF THIS UNDERTAKING CAN BE UNDERSTOOD A LITTLE BETTER BY POINTING OUT THAT ESSENTIALLY WITHIN THE PLAN PERIOD A NEW COMPUTER SYSTEMS PRODUCT LINE WILL BE DELIVERED - AND YET THIS IS OVERSHADOWED WITHIN THE NUMBERS OF THE PLAN.

MOREOVER THE PLAN - AT AN 11% REVENUE GROWTH RATE - IS FAIRLY CONSERVATIVE IN ITS TOTAL PERSPECTIVE. THESE REVENUES ARE ALSO MORE FIRMLY BASED ON ACTUAL MARKET AREA PROGRAMS AS OPPOSED TO STATISTICAL EXTRAPOLATIONS. THE PLAN IS BY NO MEANS RISK FREE BUT WITH MANAGEABLE RATES OF INVESTMENT AND A LOT OF DETERMINATION IT IS ACHIEVABLE.

I’M SURE THAT IN A FEW YEARS WE ARE GOING TO BE able TO LOOK BACK WITH AS MUCH SATISFACTION ON THE RESULTS AS TODAY WE ARE LOOKING FORWARD WITH ANTICIPATION.

QUESTIONS?
# SYSTEMS, SERVICES & MARKETING

## CY1977

### BUDGET CALENDAR

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1. CURRENCY RATES
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