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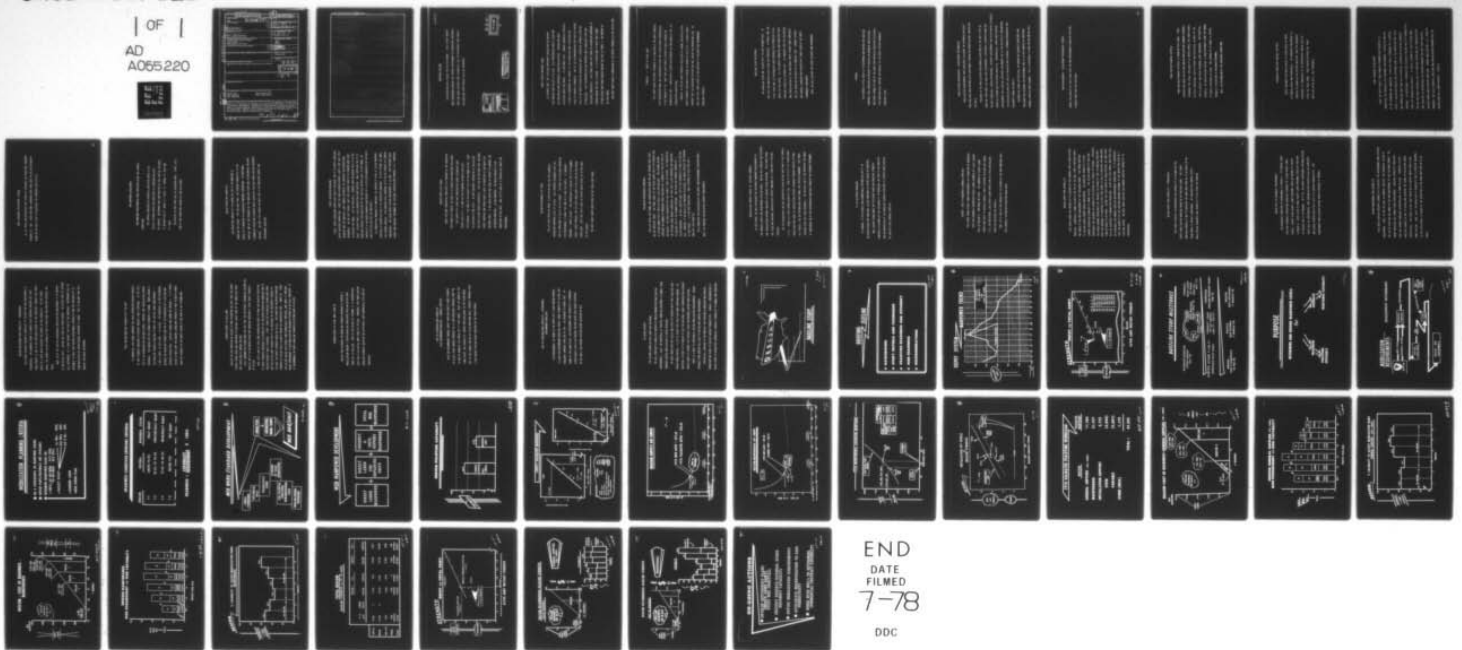
ARMY DEPOT SYSTEM COMMAND CHAMBERSBURG PA  
BASELINE STUDY. (U)  
MAR 78 R C HOLLENBAUGH

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Roger C. Hollenbaugh

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ABSTRACT (Continue on reverse side if necessary and identify by block number)  
The purpose of the Baseline Study was to determine the manpower Base required at Army depots to meet surge/mobilization requirements, considering efficient/effective operating levels. Impact of current manpower limitations on peacetime and MOB/surge capabilities was established. Results of this study will be used in the PPBS cycle to influence future resource allocations for DESCOM.

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 Army Readiness  
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 Depot Mobilization

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### BRIEFING OUTLINE

THIS BRIEFING WILL FOLLOW THE OUTLINE SHOWN. I WILL FIRST PRESENT SOME BACKGROUND SHOWING THE CURRENT ENVIRONMENT OF DECREASING RESOURCES, THEN THE STUDY CRITERIA AND METHODOLOGY WILL BE DISCUSSED, AND FINALLY THE BASELINE STUDY RESULTS WILL BE PRESENTED.

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#### DEPOT SYSTEM MANPOWER TREND

IN OCTOBER 1976, THE CIVILIAN EMPLOYMENT PROJECTION FOR DESCOM WAS REDUCED FROM 36,205 TO 34,138. THIS REPRESENTED OVER A 2,000 MAN CUT AND WOULD HAVE REQUIRED A REDUCTION-IN-FORCE. DESCOM HAD BEEN ACTIVATED ABOUT ONE MONTH -- IN SEPTEMBER 1976. GENERAL BERGQUIST DIRECTED A STUDY TO DETERMINE THE IMPACTS OF THIS REDUCTION AND A BRIEFING WAS GIVEN TO GENERAL D'AMBROSIO. ONE OF THE RECOMMENDATIONS WAS THAT NO FURTHER CUTS IN THE DEPOT SYSTEM BE AUTHORIZED UNTIL A BASELINE STRENGTH COULD BE ESTABLISHED. THIS RECOMMENDATION WAS APPROVED AND A BASELINE STUDY WAS INITIATED IMMEDIATELY. THIS CHART SHOWS THE TREND OF AUTHORIZED MANPOWER IN DESCOM DURING THE PAST 15 YEARS. IT IS SIGNIFICANT TO NOTE THAT ALMOST 25,000 SPACES HAVE BEEN REDUCED DURING THE PAST 10 YEARS --- AN AVERAGE OF 187 PER MONTH.

THE NEXT CHART SHOWS A COMPARISON OF THE DEPOTS STRENGTH TO THE ACTIVE ARMY.

STRENGTH --- DEPOT VS TOTAL ARMY

THIS CHART SHOWS THE DEPOT STRENGTH AS A FUNCTION OF THE ARMY STRENGTH. THIS REGRESSION MODEL WAS CONSTRUCTED USING THE 7 DATA POINTS REPRESENTING FY 68 THROUGH FY 74. NOTE THAT DATA POINTS CLUSTER CLOSELY AROUND THE REGRESSION LINE -- INDICATING A STRONG RELATIONSHIP AS CONFIRMED BY THE .93 CORRELATION COEFFICIENT.

HOWEVER, AS ACTIVE ARMY STRENGTH STABILIZED AT AROUND 785,000 IN 1974, DEPOT STRENGTH CONTINUED TO REDUCE AS SHOWN BY THE FY 75 - 78 DATA POINTS. OBSERVE THAT THE DECREASES PLOTTED ARE WELL BELOW THE REGRESSION LINE. WE WILL USE THIS CHART LATER IN THE BRIEFING TO VALIDATE OUR RECOMMENDED BASELINE STRENGTH.

BASELINE STUDY MILESTONES

THE BASELINE STUDY WAS "KICKED OFF" IN LATE OCTOBER 1976. BY MAY 1977 THE ANNISTON PILOT STUDY WAS COMPLETED. IN EARLY JUNE THE PILOT STUDY AND ITS METHODOLOGY WERE APPROVED FOR EXTENSION TO ALL DEPOTS BY THE DCGMR. ALL THE DEPOTS CONDUCTED AND COMPLETED THEIR BASELINE STUDIES BY OCTOBER 1977. IN FEBRUARY 1978 THE VALIDATION AND CONSOLIDATION OF THE INDIVIDUAL DEPOT STUDIES WERE COMPLETED, AND THE DCGMR WAS BRIEFED ON 15 FEBRUARY 1978. GENERAL GUTHRIE AND GENERAL JOHANSEN WERE BRIEFED ON 7 MARCH 1978 AT THE DEPOT COMMANDERS CONFERENCE.

NEXT, WE WILL DISCUSS THE STUDY CRITERIA AND TECHNIQUES.



**PURPOSE**

**THE PURPOSE OF THIS STUDY IS TO DETERMINE AND DEFEND THE BASELINE  
MANPOWER LEVEL REQUIRED BY DESCOM TO ACHIEVE AN ADEQUATE MOBILIZATION  
AND SURGE CAPABILITY AND AT THE SAME TIME MAXIMIZE PEACETIME EFFICIENCY.**

**THIS BRIEFING WILL PROVIDE THE RESULTS OF THE DEPOT SYSTEM COMMAND'S  
BASELINE STUDY.**

MOBILIZATION REQUIREMENTS - DEVELOPMENT METHODOLOGY

MOBILIZATION REQUIREMENTS WERE DEVELOPED FOLLOWING THE APPROACH OUTLINED HERE AND HAVE BEEN REFINED WITH CONTINUOUS INTERACTION AMONG DESCOM, DARCOM AND THE MRC'S.

INCLUDED IN THE MOBILIZATION REQUIREMENTS DEVELOPED BY THE MRC'S FOR THE BASELINE STUDY WERE LOG PLAN 4102 REQUIREMENTS, TOE/POMCUS & PREPOSITIONED WAR RESERVE SHORTAGES, THEATER RETROGRADE, TRAINING REQUIREMENTS AND REQUIREMENTS ESTIMATES BASED ON VIETNAM AND YOM KIPPUR CONFLICTS. NEVERTHELESS, THESE MOBILIZATION REQUIREMENTS WILL REQUIRE CONTINUED REFINEMENT DUE TO THE DIFFICULTY ENCOUNTERED IN ARTICULATION AND THE LACK OF DETAILED MOB GUIDANCE, STANDARD METHODOLOGY AND UNIFORMITY AMONG THE MRC'S.

RECOGNIZING THESE DIFFICULTIES, HQ DARCOM HAS RECENTLY DEVELOPED AND PUBLISHED MOB GUIDANCE FOR MAINTENANCE AND IS IN THE PROCESS OF PROVIDING GENERAL SUPPLIES MOB GUIDANCE. THIS IS DEFINATELY A GOOD ACTION AND WE WILL

MOB REQUIREMENTS - DEVELOPMENT METHODOLOGY (CONTD)

UPDATE THE RESULTS OF THIS STUDY WITH THE MOB REQUIREMENTS BASED ON THIS NEW  
GUIDANCE WHEN THEY ARE AVAILABLE.



## MOBILIZATION PLANNING CRITERIA

MOBILIZATION PLANNING CRITERIA IS SHOWN ON THIS CHART. THESE CRITERIA ARE BASED ON OSD AND DARCOM MOBILIZATION PLANNING GUIDANCE. THROUGHOUT THE STUDY, AVAILABILITY OF REPAIR PARTS, THE INEFFICIENCY OF SHIFT OPERATIONS, BOTH IN PEOPLE AND FACILITIES, AS WELL AS THE TIME TO RECRUIT AND TRAIN PERSONNEL, WERE CONSIDERED. FOR PRACTICAL PURPOSES, THE MOBILIZATION POSTURE IS BASED PRIMARILY UPON THE NUMBER OF PEOPLE AVAILABLE ON M-DAY. OUR CAPABILITY TO SURGE IS LIMITED PRIMARILY TO OVERTIME OF ON-BOARD PERSONNEL.

NEXT, AN EXPLANATION OF THE READINESS CONDITIONS.

READINESS CONDITION (REDCON) CRITERIA

DEPOT READINESS FOR MOBILIZATION IS STATED BOTH IN TERMS OF REDCON LEVELS AND PERCENTAGES. THE READINESS PERCENTAGE IS COMPUTED AS SHOWN BY THE BOTTOM EQUATION, THEN THE READINESS PERCENTAGE IS TRANSLATED TO THE APPROPRIATE REDCON LEVEL BY USING THE TABLE SHOWN. THESE REDCON CRITERIA ARE THOSE SPECIFIED IN AR 220-1, UNIT READINESS.

#### WORK STANDARDS DEVELOPMENT

SINCE THE DEPOT DIRECT LABOR MANHOUR STANDARDS ARE ESSENTIAL TO TRANSLATING THE WORKLOAD INTO PERSONNEL REQUIREMENTS, A DETAILED ANALYSIS OF THE STANDARDS WAS CONDUCTED. USING THE SINGLE STANDARDS AS A STARTING POINT, A VALIDATION PROCESS WAS PERFORMED DOWN TO THE OPERATION CODE LEVEL AND COMPARISONS WERE MADE WITH HISTORICAL INFORMATION ON ACTUAL MANHOURS CONSUMED. IN MAINTENANCE, STANDARDS WERE ADJUSTED FOR NEW FACILITY PRODUCTIVITY GAINS FOR APPROVED MCA PROJECTS. IN SUPPLY, ECONOMY OF SCALE FACTORS WERE APPLIED AND OTHER VARIABLES SUCH AS WORKLOAD VOLUME AND MIX CHARACTERISTICS WERE ANALYZED IN DETERMINING THE MINIMUM MANHOURS PER UNIT THAT COULD BE ACHIEVED UNDER MOBILIZATION CONDITIONS. DURING MOBILIZATION, I.E., STATE OF EMERGENCY, THE LESS ESSENTIAL FUNCTIONS AND NON-RECURRING PROGRAMS WILL BE ACCOMPLISHED ON A LOWER PRIORITY. (CONT'D)



WORK STANDARDS DEVELOPMENT (CONTD)

ALL OF THESE CONSIDERATIONS HAVE SERVED TO DECREASE THE PEACETIME STANDARDS BETWEEN 25 - 30%. THESE MOB WORK STANDARDS WERE THEN USED IN THE RELATIONSHIPS SHOWN ON THE NEXT SLIDE TO DETERMINE THE MANPOWER REQUIREMENTS.

**MOB MANPOWER DEVELOPMENT**

**MOB MANPOWER REQUIREMENTS WERE DEVELOPED USING THE FORMULA**

**SHOWN HERE.**

**THE SUPPORT REQUIRED BY FORSCOM'S DEPLOYING UNITS IS AN  
INITIAL ESTIMATE WHICH WAS DEVELOPED IN COORDINATION WITH  
HQ FORSCOM. REFINEMENT AND CONFIRMATION OF THIS INITIAL ESTIMATE  
IS ONGOING WITH FT. BRAGG, FT. RILEY, FT. CARSON, FT. POLK AND  
FT. HOOD.**

**THE RESULTS OF OUR STUDY WILL BE DISCUSSED NEXT. FIRST, LET'S  
LOOK AT OUR PEACETIME CAPABILITY AND EFFICIENCY.**

## DESCOM PEACETIME CAPABILITY

OUR PEACETIME CAPABILITY TO ACCOMPLISH THE FY 78 WORKLOAD IS SHOWN ON THIS CHART. FOR THE MOST PART, THE PERCENT CAPABILITY IS THE RESULT OF A WORKLOAD TO AUTHORIZED MANPOWER COMPARISON. AS MENTIONED EARLIER, ONE OF THE PURPOSES OF THE BASELINE STUDY WAS TO DETERMINE THE MOST ECONOMICAL PEACETIME STRENGTH WHILE ACHIEVING THE BEST MOBILIZATION READINESS POSTURE. THE NEXT FIVE CHARTS VALIDATE THE FY 78 PEACETIME SUPPLY AND MAINTENANCE WORKLOAD.



### SUPPLY VALIDATED WORKLOAD

FIRST, THESE REGRESSION CHARTS ARE USED TO VALIDATE THE FY 78 SUPPLY WORKLOAD, WHICH INCLUDES AMMUNITION. SINCE THE AREA ORIENTED DEPOTS, AOD'S, ARE LINE ITEM ORIENTED AND THE NON-AOD'S ARE TONNAGE ORIENTED, WE COMPUTED THE REGRESSIONS SEPARATELY. ON THE LEFT GRAPH, LINE ITEM VOLUMES FROM FY 74 FORWARD WERE USED TO DEVELOP THE MODEL. FOR THE NON-AOD'S, TONNAGE DATA BEGINNING WITH FY 74 WAS USED. IN BOTH CASES, HIGH CORRELATIONS WERE DERIVED. NOW, APPLYING THE FY 78 WORKLOAD FORECAST DATA, DEPICTED BY THE VERTICAL DOTTED LINE, TO THE MODEL, WE ARRIVED AT A VALIDATED MANHOUR REQUIREMENT OF 9.11 MILLION MANHOURS FOR THE AOD'S AND 8.35 MILLION FOR THE NON-AOD'S.

BY TRANSLATING MANHOURS TO MANYEARS, WE COMPUTED A TOTAL OF 10,169 MANYEARS REQUIRED TO ACCOMPLISH THE FY 78 FORECASTED WORKLOAD. TO THIS FIGURE, WE ADDED OUR CURRENT BACKLOG. THIS BACKLOG WILL INCREASE IN FY 78 AS A RESULT OF FUNDING CONSTRAINTS. THE TOTAL DEPOT SYSTEM REQUIREMENT IS 11,384. THIS INCLUDES BOTH DIRECT AND INDIRECT PERSONNEL BUT EXCLUDES INSTALLATION SUPPORT; I.E., OVERHEAD.

DESCOM SUPPLY AIF CURVE

SINCE THE ARMY INDUSTRIAL FUND RATE IS A MEASURE OF THE OPERATING EFFICIENCY OF A DEPOT, WE USED IT TO ASSESS OUR PEACETIME EFFICIENCY.

THIS SUPPLY AIF CURVE WAS CONSTRUCTED USING HISTORICAL DATA POINTS FOR FY 74 - 77 AND THE OSD PLANNING CRITERIA FOR SHIFT EFFICIENCIES. THE AREA OF EFFICIENCY LIES IN THE RANGE OF 80 - 125% UTILIZATION OF ONE SHIFT. WE ARE PRESENTLY OPERATING AT \$19.56 PER DLH WITH 10,061 PEOPLE AUTHORIZED. THIS \$19.56 PER HOUR RATE INCLUDES DIRECT MATERIAL AND OTHER DIRECT COSTS IN ADDITION TO THE BASIC AIF RECOVERY RATE. IF WE COULD RAISE OUR LEVEL OF EFFORT TO SUPPORT THE VALIDATED WORKLOAD - 11,384 MANYEARS - WE WOULD ACHIEVE A 4.5% REDUCTION IN THE RATE. NOW, LET'S LOOK AT A SIMILAR AIF CURVE FOR MAINTENANCE.

DESCOM MAINTENANCE AIF CURVE

THE AIF RATE FROM OUR MODEL IS \$29.48 PER DLH FOR THE CURRENTLY AUTHORIZED MANPOWER LEVEL OF 16,870. THIS COMPARES FAVORABLY WITH THE \$30.12 CONTAINED IN THE FY 78 AIF BUDGET. THE AREA OF EFFICIENT OPERATION FOR MAINTENANCE IS ABOUT THE SAME AS IT WAS FOR SUPPLY. IF ADEQUATE MANPOWER -- ABOUT 22,000 -- WAS AUTHORIZED TO EXECUTE THE FY 78 PLANNED DIRECT LABOR PROGRAM, THE AIF RATE WOULD DROP 9.5% TO \$26.78 PER DIRECT LABOR HOUR. NOTE THAT THIS LEVEL OF EFFORT WOULD PLACE US IN THE AREA OF EFFICIENCY.

THE NEXT CHART SHOWS THESE RATES ON THE TOTAL COST CURVE.



VALIDATED MAINTENANCE MANYEARS

THIS AIF TOTAL COST MODEL WAS CONSTRUCTED USING THE AIF AVERAGE RATE CURVE ON THE PREVIOUS CHART. THE TABLE INSET AT THE RIGHT SHOWS THE FY 78 CARRYIN AND FY 78 NEW ORDERS FOR A TOTAL OF OVER 1 BILLION DOLLARS. THE SECOND COLUMN CONTAINS THE NUMBER OF MANYEARS THESE DOLLARS WILL FINANCE AT THE AIF RATE OF \$29.48/HR - THE RATE PROJECTED FOR THE CURRENT LEVEL OF EFFORT. BY SUBTRACTING THE OPTIMUM THREE MONTHS CARRYOVER, WE FIND THAT 21,937 MANYEARS ARE REQUIRED TO EXECUTE THE FY 78 PLANNED PROGRAM. NOW USING OUR CURRENT CAPABILITY -- 16,870 MANYEARS -- WE WILL EXECUTE ONLY 77% OF THE PROGRAM AT A RATE OF \$29.48/DLH. HOWEVER, IF WE HAD 21,937 MANYEARS AVAILABLE, WE WOULD EXECUTE THE PROGRAM AT \$26.78/DLH -- A 9.5% RATE REDUCTION -- AND A SAVINGS OF \$121 MILLION -- \$804 MIL LESS \$683 MIL.

THIS COMPLETES THE DISCUSSION OF THE SUPPLY AND MAINTENANCE MISSION AREAS. NEXT, WE CONSIDER INSTALLATION SUPPORT REQUIREMENTS.

INSTALLATION SUPPORT PEOPLE VS. MISSION STRENGTH

TO THIS POINT, WE HAVE DISCUSSED THE VALIDATED MANPOWER REQUIREMENTS OF THE GENERAL SUPPLY AND MAINTENANCE MISSION AREAS. NOW WE WILL DEVELOP AND VALIDATE THE INSTALLATION SUPPORT REQUIRED TO SUPPORT THESE MISSIONS. THIS CHART SHOWS THE FIXED AND VARIABLE INSTALLATION SUPPORT MANPOWER AS A FUNCTION OF MISSION STRENGTH.

THE TOP REGRESSION LINE WAS CONSTRUCTED USING ACTUAL DATA FROM FY 69 THROUGH FY 75 -- THERE IS A HIGH CORRELATION OF 0.96. FROM FY 75 TO FY 77, SIGNIFICANT REDUCTIONS WERE MADE IN INSTALLATION SUPPORT OVERHEAD THROUGH CONCISE ACTIONS. AS A RESULT, THE TOP REGRESSION CURVE MODEL HAS SHIFTED DOWNWARD. THIS MODEL TOGETHER WITH THE FIXED OVERHEAD -- THE DOTTED LINE AT THE BOTTOM OF THE CHART -- IS CONSIDERED VALID FOR DETERMINING BASELINE-STRENGTH FOR OVERHEAD PERSONNEL.

FY 78 VALIDATED WORKLOAD

IN SUMMARY, TO EFFICIENTLY AND ECONOMICALLY ACCOMPLISH THE FY 78 VALIDATED PEACETIME WORKLOAD, 43,255 MANYEARS OF EFFORT WOULD BE REQUIRED.

NOW, HAVING ESTABLISHED THE EFFICIENT PEACETIME BASELINE STRENGTH REQUIRED TO ACCOMPLISH THE VALIDATED FY 78 WORKLOAD, WE TURN TO OUR ANALYSIS AND DETERMINATION OF THE BASELINE STRENGTH REQUIRED TO SUPPORT MOBILIZATION. WE DISCUSS FIRST GENERAL SUPPLIES.



DESCOM - COST OF READINESS (GENERAL SUPPLIES)

THIS CHART SHOWS DIRECT LABOR REQUIREMENTS AS A FUNCTION OF READINESS.

WITH OUR CURRENTLY AUTHORIZED DIRECT LABOR STRENGTH OF 7,677, DESCOM WILL BE REDCON 3 - 78% READY ON M-DAY. THE NUMBERS OF DIRECT LABOR PEOPLE AND COSTS TO ACHIEVE REDCON 1 AND 2 POSTURES ON M-DAY ARE SHOWN, E.G., AN ADDITIONAL 1,816 DIRECT LABOR PEOPLE AND 61.3 MILLION DOLLARS WOULD BE REQUIRED FOR REDCON 1.

NOW, LET'S LOOK AT OUR CAPABILITY TO ACCOMPLISH THE MOB WORKLOAD WITH OUR CURRENTLY AUTHORIZED PEACETIME WORK FORCE.

## DESCOM SUPPLY MOB CAPABILITY

THIS CHART SHOWS OUR CAPABILITY TO ACCOMPLISH THE GENERAL SUPPLY MOBILIZATION WORKLOAD. SHORTFALLS, SHOWN IN RED AT THE TOP OF THE BAR, FROM A PREVIOUS MONTH ARE ADDED TO THE MOB REQUIREMENT OF THE FOLLOWING MONTH - THE ARROW ADJACENT TO THE BAR SHOWS CURRENT MONTH REQUIREMENT. THE BASELINE CAPABILITY OF OUR CURRENT AUTHORIZED STRENGTH IS SHOWN IN BLUE. THE YELLOW SEGMENT OF EACH BAR REPRESENTS THE INCREASE IN CAPABILITY WE ACHIEVE AS A RESULT OF HIRING. SIMILARLY, THE GREEN SEGMENT REPRESENTS THE INCREASE IN CAPABILITY DUE TO WORKING OVERTIME. NOTE THE DECREASE IN OVERTIME IN THE THIRD MONTH IS DUE TO REDUCING THE WORK WEEK FROM 84 HOURS TO 60 HOURS. DURING THE FIRST MONTH OF MOBILIZATION, ALL NEW HIRES WILL BE ALLOCATED TO AMMUNITION OPERATIONS. AFTER THE FIRST MONTH, NEW HIRES WILL BE AVAILABLE FOR GENERAL SUPPLIES AND MAINTENANCE OPERATIONS. IT IS RECOGNIZED THAT THE CAPACITY OF THE SHIPPING NETWORK EXTERNAL TO THE DEPOTS MAY ALSO BE A LIMITING FACTOR. THE NEXT CHART DISPLAYS OUR GENERAL SUPPLIES CAPABILITY IN PERCENTAGES.

DESCOM SUPPLY MOB CAPABILITY - PERCENTAGES

THIS CHART DISPLAYS IN PERCENTAGES OUR CAPABILITY TO ACCOMPLISH THE SUPPLY MOBILIZATION WORKLOAD SHOWN ON THE PREVIOUS CHART. THE IMPACT UPON OUR CAPABILITY DUE TO REDUCING THE WORK WEEK FROM 84 TO 60 HOURS IN THE THIRD MONTH IS READILY OBSERVABLE. WE CONSIDER OUR GENERAL SUPPLY MOBILIZATION READINESS AND CAPABILITY TO BE CAUSE FOR CONCERN.



DESCOM COST OF READINESS (MAINTENANCE)

OUR READINESS CONDITION IN MAINTENANCE IS REDCON 4 - 53 PERCENT READY -

WITH OUR CURRENTLY AUTHORIZED BASELINE STRENGTH OF 11,800 DIRECT LABOR PEOPLE. ALMOST 8,000 DIRECT LABOR PERSONNEL WOULD BE NEEDED TO ACHIEVE A REDCON 2. OVER 3,500 OF THESE DIRECT LABOR PERSONNEL COULD BE USED NOW TO EXECUTE THE FY 78 PROGRAM. IN FY 79, THE DEPOT MAINTENANCE RATIONALIZATION STUDY WILL BE IMPLEMENTED, SOME MODERNIZATION PROJECTS WILL BE COMPLETED AND OTHERS STARTED WHICH WILL GIVE US A GREATER PRODUCTIVITY. OUR MAINTENANCE MOBILIZATION POSTURE SHOULD CONTINUE TO IMPROVE.

## DESCOM MAINTENANCE MOB CAPABILITY

THIS CHART DISPLAYS DESCOM'S CAPABILITY TO SATISFY THE MAINTENANCE MOBILIZATION REQUIREMENT. HERE, AS WAS THE CASE IN GENERAL SUPPLIES, THE SHORTFALL IN RED AT THE TOP OF EACH BAR WAS ADDED TO THE MOB REQUIREMENT OF THE FOLLOWING MONTH: THE ARROW INDICATES THE CURRENT MONTH REQUIREMENT. BASELINE CAPABILITY RESULTANT FROM OUR CURRENT MANPOWER AUTHORIZATION IS SHOWN IN BLUE. INCREASES IN THIS BASELINE CAPABILITY DUE TO HIRING AND OVERTIME ARE SHOWN IN YELLOW AND GREEN RESPECTIVELY. THE HIRES IN THE FIRST MONTH ARE AT DEPOTS WHERE THERE IS NO AMMO MISSION. HERE, ALSO, THE REDUCTION IN CAPABILITY DUE TO OVERTIME OBSERVED IN THE THIRD MONTH IS CAUSED BY THE REDUCTION IN THE WORK WEEK FROM 84 TO 60 HOURS.

DESCOM MAINTENANCE MOB CAPABILITY - PERCENTAGES

THIS CHART DISPLAYS DESCOM'S CAPABILITY TO SATISFY THE MOB REQUIREMENT IN PERCENTAGES. THE DOWNWARD TREND IN CAPABILITIES OBSERVED THROUGH THE FIRST THREE MONTHS IS DUE TO THE CONTINUED GROWTH IN THE SHORTFALL THROUGH THE FOURTH MONTH AT A RATE WHICH EXCEEDS THE GROWTH IN OUR CAPABILITY. IN THE FOURTH MONTH, THE GROWTH IN OUR CAPABILITY DUE TO NEW HIRES AND OVERTIME REVERSES THE TREND.

ABOUT 7% OF THE INITIAL MAINTENANCE MOBILIZATION REQUIREMENT IS IN SUPPORT OF DEPLOYING UNITS. BEYOND THE THIRD OR FOURTH MONTHS, THE ACTUAL RATE OF RETURNS WILL DETERMINE, TO A LARGE DEGREE, THE SIZE OF THE WORKLOAD. RETROGRADE WILL BE DEPENDENT IN PART UPON THEATER MAINTENANCE CAPABILITY AND THE AVAILABILITY OF TRANSPORTATION FOR UNSERVICEABLE EQUIPMENT TO CONUS. THIS IS AN AREA THAT WILL REQUIRE CONTINUED REFINEMENT.



TOTAL DESCOM BASELINE STRENGTH VS FY 78 AUTH

TO SUMMARIZE, THIS CHART COMPARES THE TOTAL AUTHORIZED DESCOM STRENGTH TO THAT STRENGTH REQUIRED TO ACHIEVE REDCON 1 AND 2 POSTURES. AT THE LEFT, THE FY 78 AUTHORIZATION INCLUDES DIRECT, INDIRECT AND INSTALLATION SUPPORT PERSONNEL. THE REDCON FOR THE CURRENT STRENGTH IS SHOWN. UNDER REDCON 2, THE BASELINE STRENGTH REQUIRED TO MEET THE INITIAL SURGE REQUIREMENTS -- 7 DAYS A WEEK, 12 HRS A DAY -- IS 49,697. THE SHORTFALL IS THE DIFFERENCE BETWEEN THE BASELINE STRENGTH AND THE FY 78 AUTHORIZED CEP (CIVILIAN END STRENGTH PROJECTION). SIMILAR FIGURES ARE SHOWN FOR REDCON 1. IT IS INTERESTING TO NOTE THAT THE REDCON 1 BASELINE STRENGTH IS ONLY SLIGHTLY LARGER THAN THE STRENGTH OF THE DEPOT SYSTEM AT THE PEAK OF THE VIETNAM WAR.

## STRENGTH DEPOT VS TOTAL ARMY

EARLIER IN THIS BRIEFING WE CALLED TO YOUR ATTENTION THE FACT THAT THE DEPOT SYSTEM'S WORK FORCE HAD CONTINUED TO DECLINE, WHILE THAT OF THE GREEN SUIT ARMY HAD STABILIZED AT AROUND 785,000.

ALSO, REMEMBER WE ESTABLISHED THE FACT THAT THE EFFICIENT, ECONOMICAL ACCOMPLISHMENT OF THE FY 78 VALIDATED PEACETIME WORKLOAD REQUIRES A TOTAL DEPOT STRENGTH OF 43,255.

NOW, LET'S LOOK AT THIS SAME REGRESSION CHART TO SHOW THE RELATIVE POSITION OF DEPOT STRENGTH REQUIRED TO ACCOMPLISH THE VALIDATED PEACETIME WORKLOAD AND TO ACHIEVE REDCON 1 AND 2 POSTURES. FIRST, USING THE HISTORICAL REGRESSION CURVE AND THE ACTIVE ARMY STRENGTH FOR FY 78 CONTAINED IN THE PRESIDENT'S BUDGET OF 774,200, THE DEPOT STRENGTH WOULD BE 44,111. OUR PEACETIME VALIDATED WORKLOAD STRENGTH OF 43,255 FALLS SLIGHTLY BELOW THE REGRESSION LINE -- ABOUT 2%. SINCE THE 43,255 CAN BE EFFICIENTLY AND ECONOMICALLY EMPLOYED, AND SINCE IT PROVIDES MAJOR IMPROVEMENT IN OUR MOBILIZATION READINESS POSTURE AS WE WILL SHOW NEXT, IT IS RECOMMENDED THE DEPOT BASELINE STRENGTH BE ESTABLISHED AT 43,255.

STRENGTH DEPOT VS TOTAL ARMY (CONT'D)

NOTICE THAT ALTHOUGH THE BASELINE STRENGTH REQUIRED TO SUPPORT A MOBILIZATION REDCON 1 STATUS WOULD BE CONSISTENT WITH AN ACTIVE ARMY FORCE OF 1.6 MILLION - THAT AT THE HEIGHT OF VIETNAM, IT IS INCONSISTENT WITH THE FY 78 ACTIVE ARMY FORCE OF 774,200. MOREOVER, THIS MOBILIZATION BASELINE STRENGTH COULD NOT BE EFFICIENTLY AND ECONOMICALLY UTILIZED IN PEACETIME.



COST OF READINESS/MOB CAPABILITY  
WITH RECOMMENDED BASELINE -- GENERAL SUPPLIES

WITH THE RECOMMENDED GENERAL SUPPLY BASELINE DIRECT LABOR STRENGTH OF 8,687, M-DAY REDCON IMPROVES TO C-2 AND READINESS IMPROVES FROM 79% TO 88% AS SHOWN AT THE UPPER LEFT OF THIS CHART. ALSO, AS SHOWN AT THE LOWER RIGHT, OUR CAPABILITY, RATHER THAN DECLINING IN THE THIRD MONTH DUE TO THE CHANGE FROM AN 84 TO 60 HOUR WORK WEEK, STEADILY IMPROVES WITH A 100 PERCENT POSTURE BEING ACHIEVED IN THE FOURTH MONTH.

**COST OF READINESS/MOB CAPABILITY - MAINTENANCE  
(RECOMMENDED BASELINE)**

**FOR MAINTENANCE, AS SHOWN AT THE UPPER LEFT, M-DAY REDCON REMAINS  
C-4 WITH OUR RECOMMENDED BASELINE DIRECT LABOR STRENGTH OF 15,760; BUT  
READINESS IMPROVES FROM 53% TO 72% -- AN INCREASE OF NEARLY 20%. AS  
SHOWN AT THE LOWER RIGHT, OUR MAINTENANCE MOB CAPABILITY IS ENHANCED  
SIGNIFICANTLY WITH A 90 PERCENT POSTURE BEING VERY NEARLY ACHIEVED  
BY M+5 AND A 100 PERCENT POSTURE BEING ACHIEVED BY M+6.**

ON GOING EFFORTS

THE ACTIONS SHOWN ON THIS CHART ARE ON-GOING.

WE WILL CONTINUE TO WORK WITH ARRCOM TO SMOOTH AMMUNITION MOBILIZATION REQUIREMENTS. ALSO, THE SHORTFALL OF MATERIAL HANDLING EQUIPMENT TO HANDLE LARGE TONNAGES DURING MOBILIZATION IS BEING ASSESSED.

WE HAVE IDENTIFIED THE SKILLS AND TYPES OF RESERVE UNITS THAT COULD BE USED DURING MOBILIZATION. A LIST OF THESE TYPE UNITS HAS BEEN FURNISHED DARCOM. IN ADDITION, A STUDY IS IN PROCESS TO USE THE NATIONAL GUARD TRANSPORTATION AIRCRAFT REPAIR SHOPS TO AUGMENT THE AIRCRAFT DEPOT MAINTENANCE DURING MOBILIZATION.

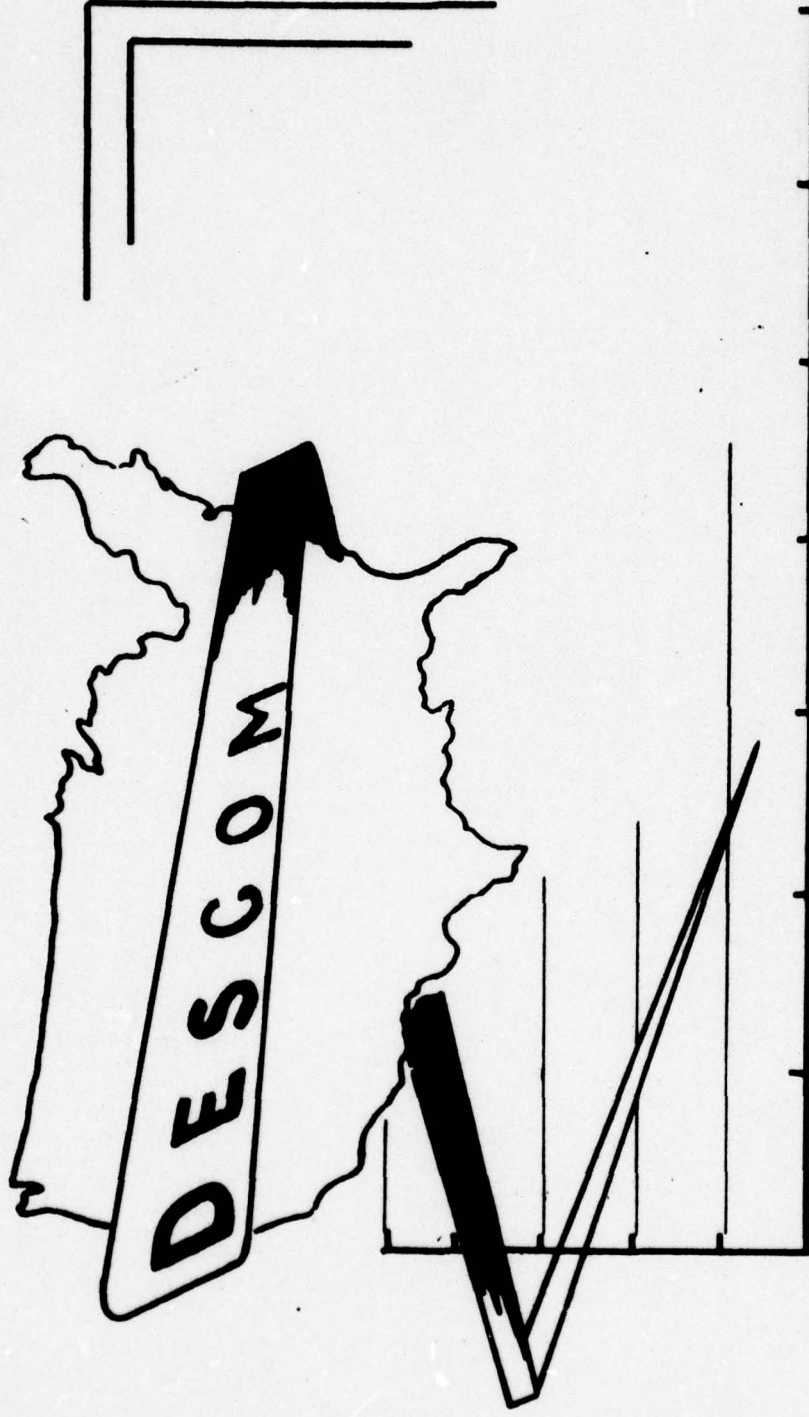
THERE IS A NEED TO CONTINUALLY REFINE MOBILIZATION REQUIREMENTS. RECENT GUIDANCE FROM DARCOM WILL HELP TO DEFINE AND COMPUTE REQUIREMENTS.

DESCOM WILL CONTINUE TO RATIONALIZE THE MISSIONS & WORKLOAD AND DEVELOP MODERNIZATION PLANS TO ACHIEVE GREATER PRODUCTIVITY. FINALLY, CONSIDERATION IS BEING GIVEN TO EVALUATING COMMERCIAL CONTRACT CAPABILITY TO HANDLE MOB OVERLOADS.



0

25 APR 1978



**BASELINE STUDY**

9 DEC 1977

9 DEC 1977

# 77-2164

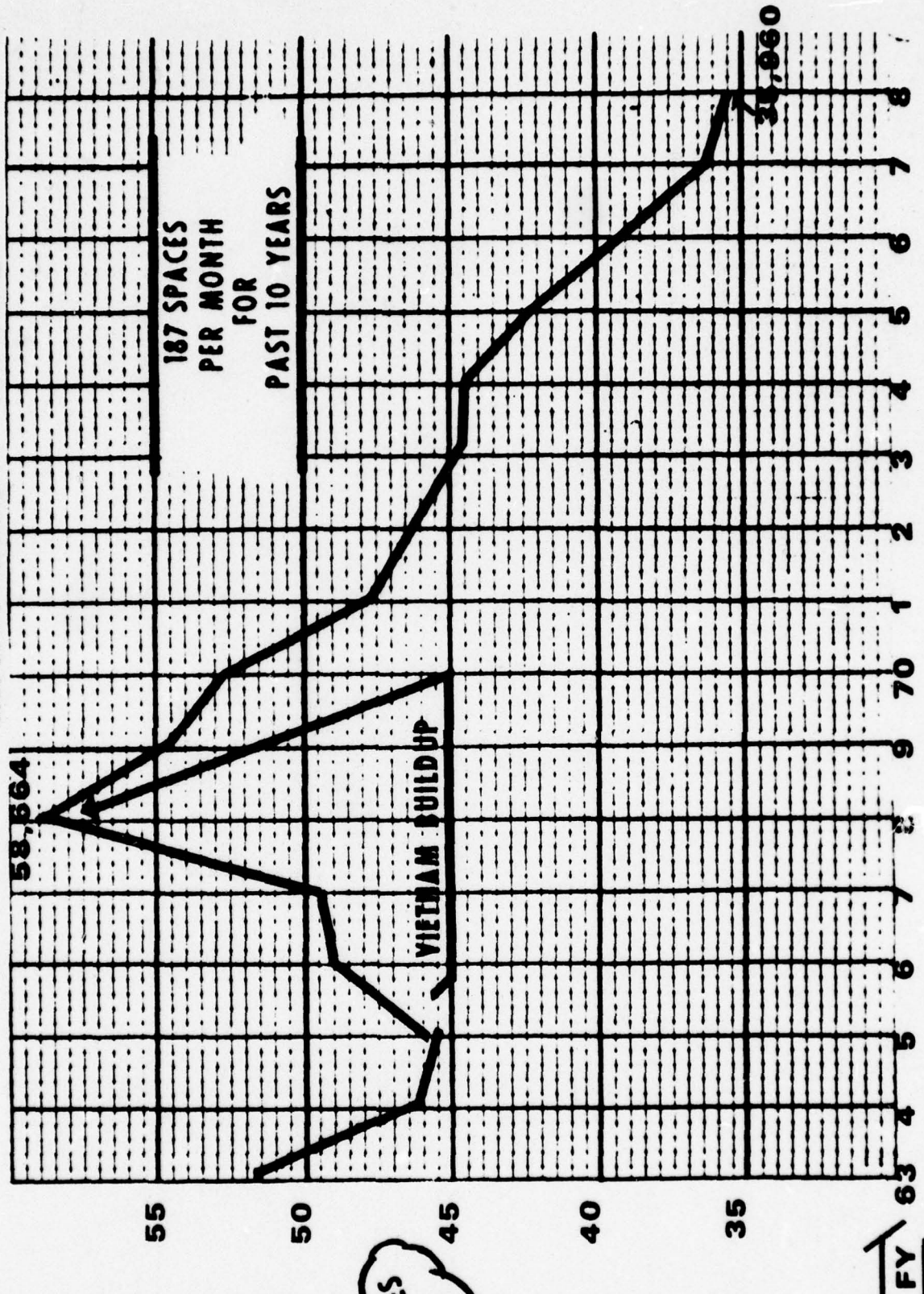
# BRIEFING OUTLINE

- **BACKGROUND**
- **STUDY CRITERIA AND TECHNIQUES**
- **PEACETIME READINESS AND EFFICIENCY**
- **MOB READINESS**
- **RECOMMENDATIONS**

#78-354  
23 FEB 1954

# DEPOT SYSTEM

# MANPOWER TREND



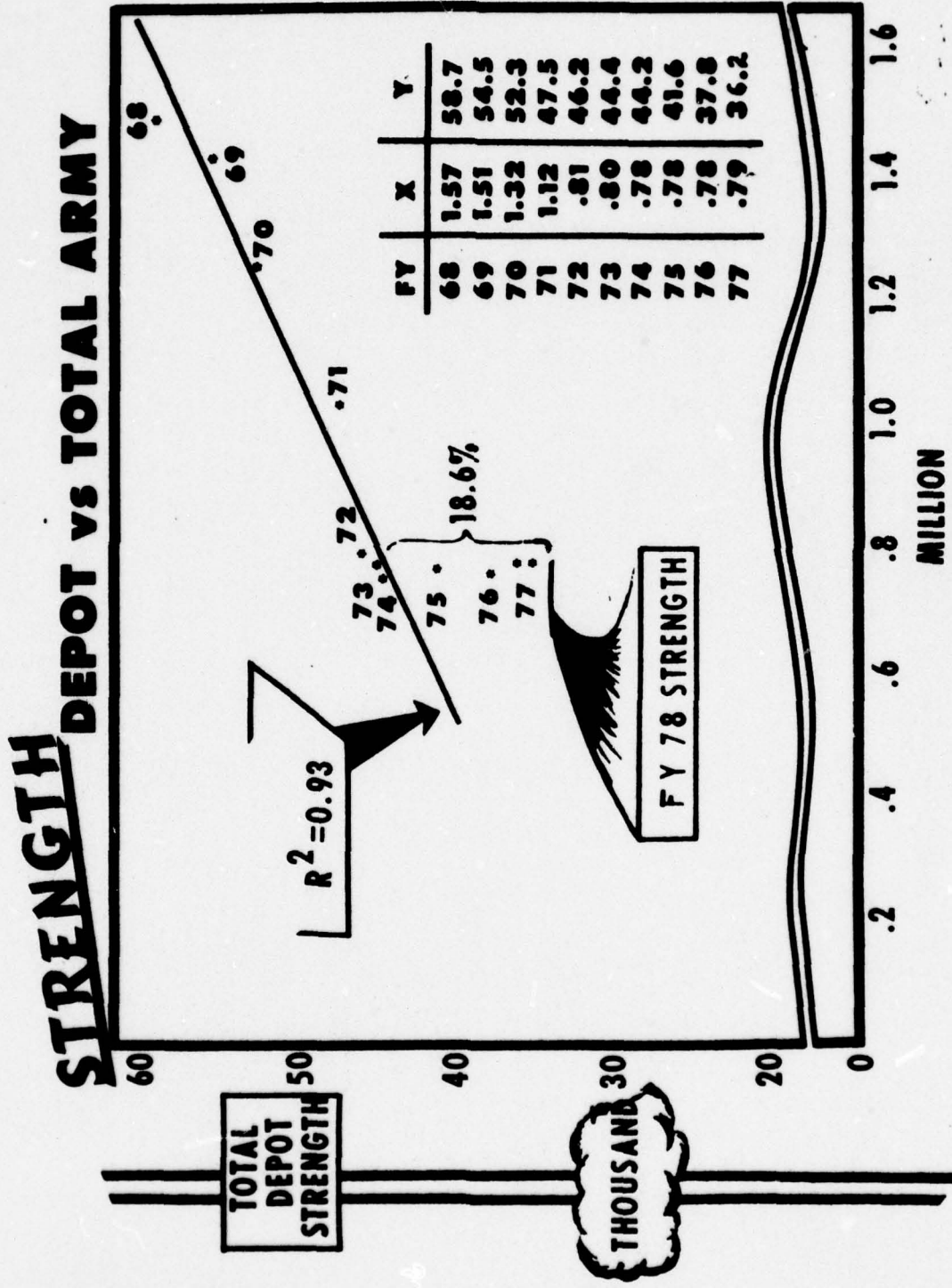
EMPLOYEES  
(000)

FY 63

#7880  
OFF 1



3



#78-184

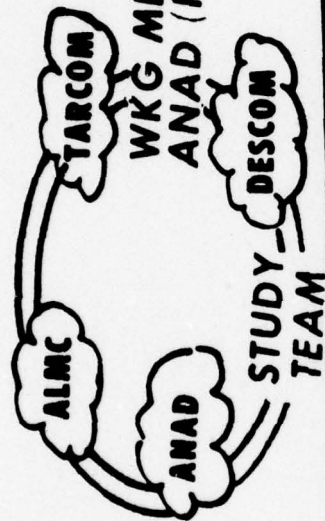
8 FEB 1978

14 FEB 1978

H

# BASELINE STUDY MILESTONES

ESTABLISH BASELINE  
STUDY GROUP  
(OCT 76)



CONDUCT  
PILOT STUDY  
AT ANAD  
(NOV 76 -  
MAY 77)

COMPLETED  
DESCOM BASELINE STUDY  
(FEB 78)

CONDUCT STUDY  
OF ALL DEPOTS  
(JUN 77 - OCT 77)

DARCOM DCGMR (9 JUN 77)  
APPROVED PILOT STUDY

BRIEFED  
GEN JOHANSEN  
(7 MARCH 78)

BRIEFED  
GEN GUTHRIE  
(7 MARCH 78)

BRIEFED  
GEN D'AMBROSIO  
(15 FEB 78)

# PURPOSE

**DETERMINE AND DEFEND MANPOWER LEVELS**

*for*

**MAXIMUM**

**PEACETIME  
EFFICIENCY**

**ADEQUATE**

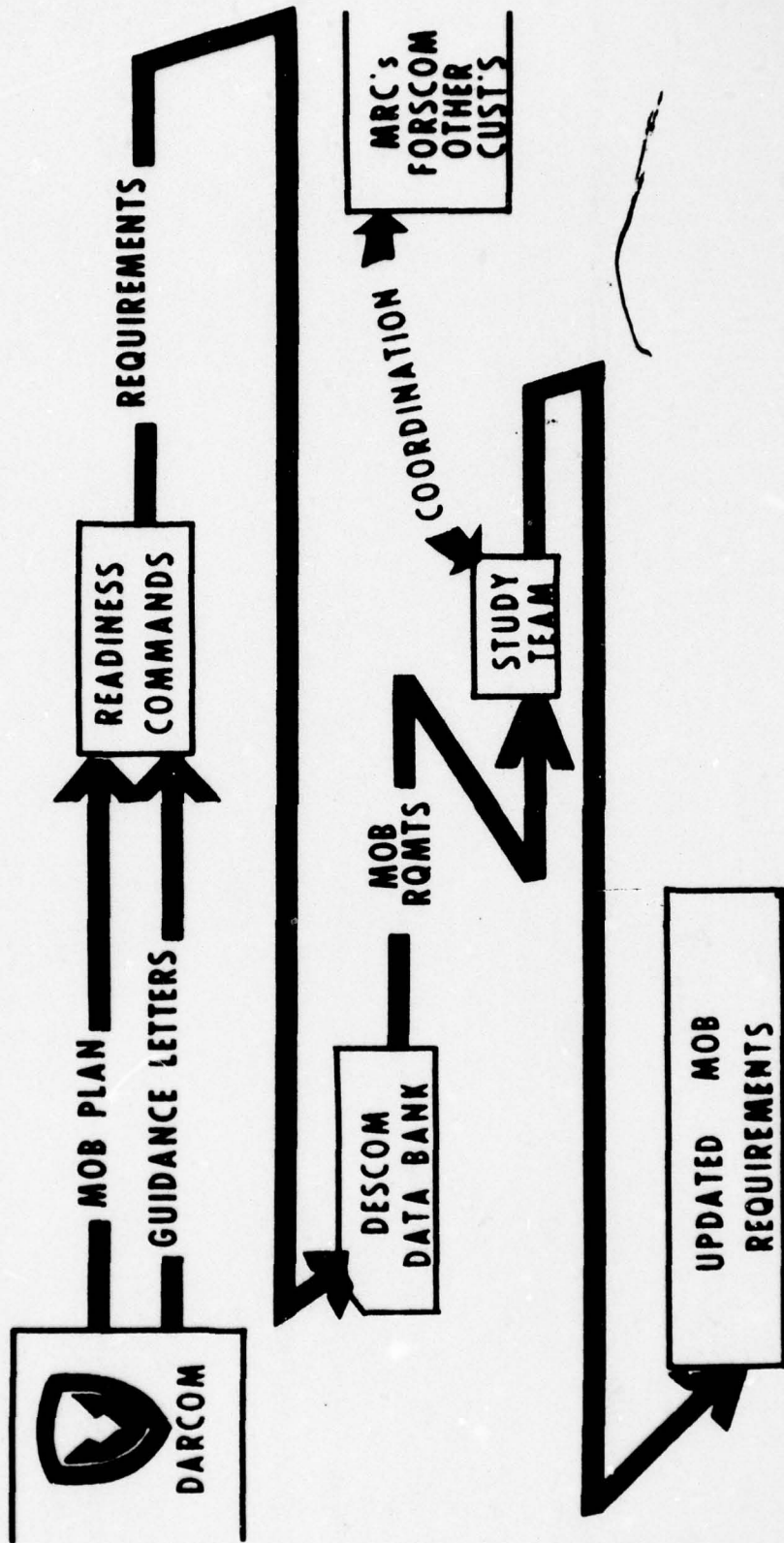
**MOB/SURGE CAPABILITY**

17-2163  
3/4/75



# MOBILIZATION REQUIREMENTS

## DEVELOPMENT METHODOLOGY



677-2169  
19 DEC 1969  
AWAD

# MOBILIZATION PLANNING CRITERIA

①

- NO \$ CONSTRAINTS OR MANPOWER CEILING
- REPAIR PARTS/MATERIALS ARE AVAILABLE
- DETERMINE MANPOWER BASED ON:
  - SHIFT ← 60 HR/WEEK - 93% EFFIC.
  - 84 HR/WEEK - 86% EFFIC.
  - FACILITY UTILITY
    - 1st 8Hrs - 100%
    - 2nd 8Hrs - 80%
    - 3rd 8 Hrs - 60%
- LEARNING CURVE
- MOB HIRING PLAN

HW-2102  
19 DEC 1971  
AWAD  
29 7F 2077

# READINESS CONDITION (REDCON) CRITERIA

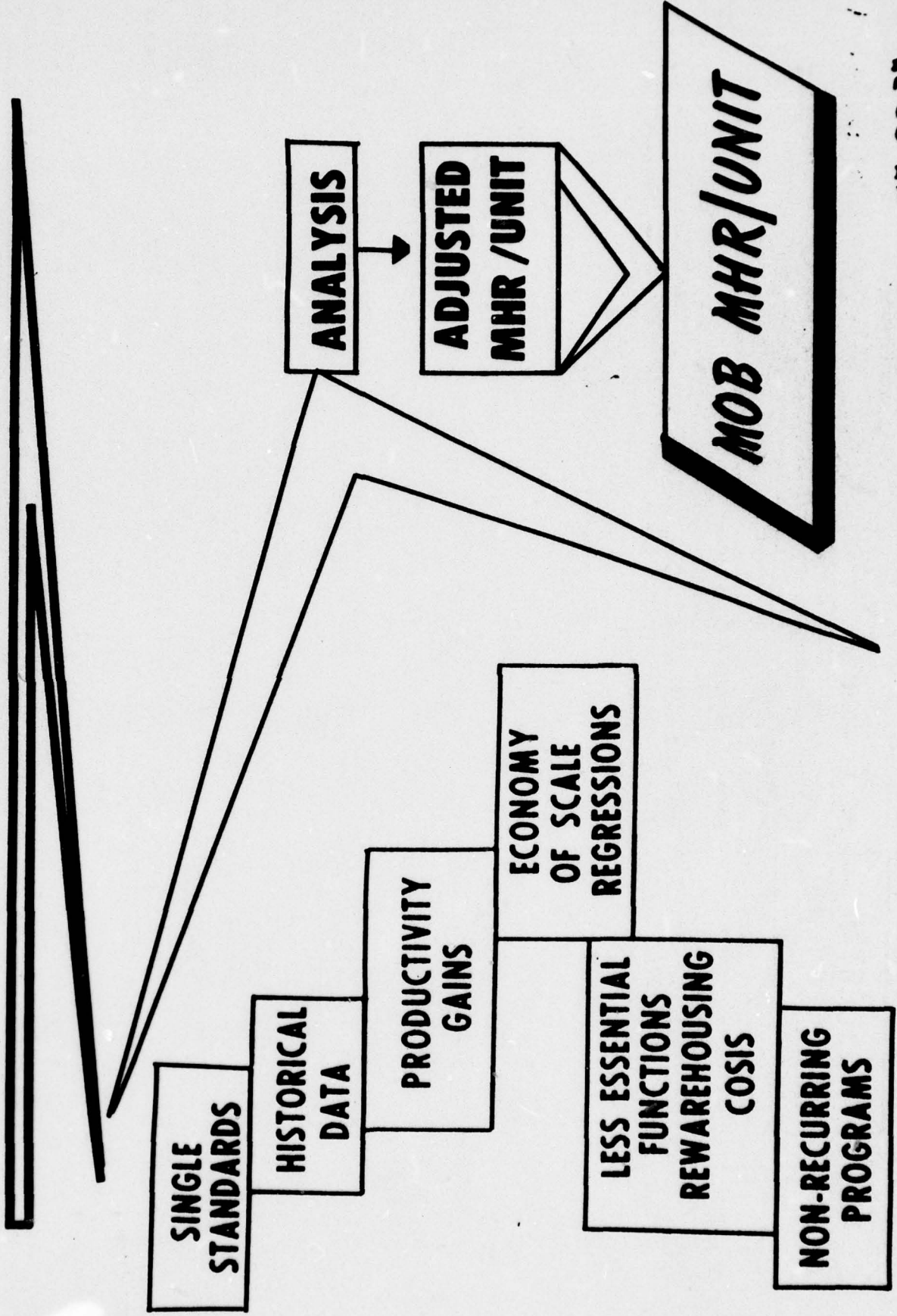
REDCON	CRITERIA	READINESS STATUS
C-1	ABOVE 95.0%	FULLY READY
C-2	85.0% TO 94.9%	SUBSTANTIALLY READY
C-3	75.0% TO 84.9%	MARGINALLY READY
C-4	BELOW 75%	NOT READY

$$\text{READINESS} = \frac{\text{CAPABILITY}}{\text{REQUIREMENT}} \times 100\%$$



6

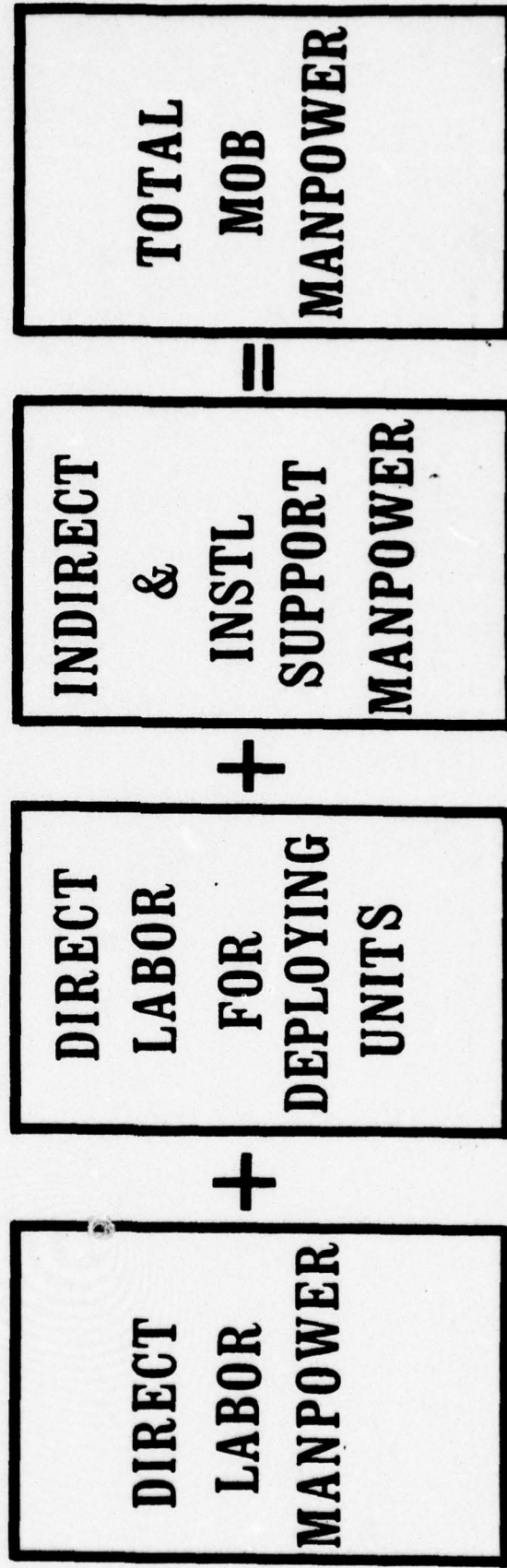
# MOB WORK STANDARD DEVELOPMENT



77-223730 JAN 15

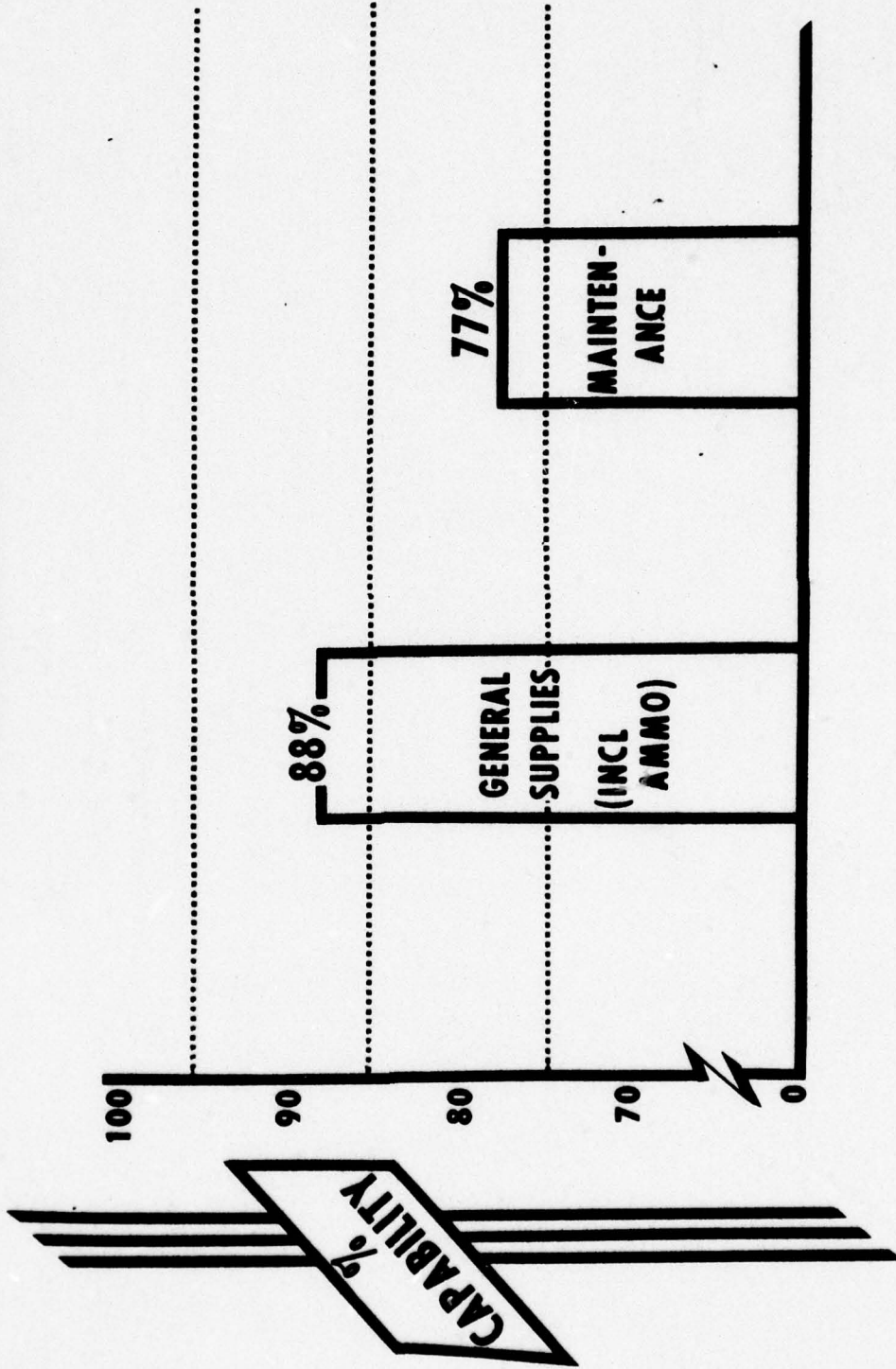
①

# MOB MANPOWER DEVELOPMENT



# >> - 2238

# DESCOM PEACETIME CAPABILITY

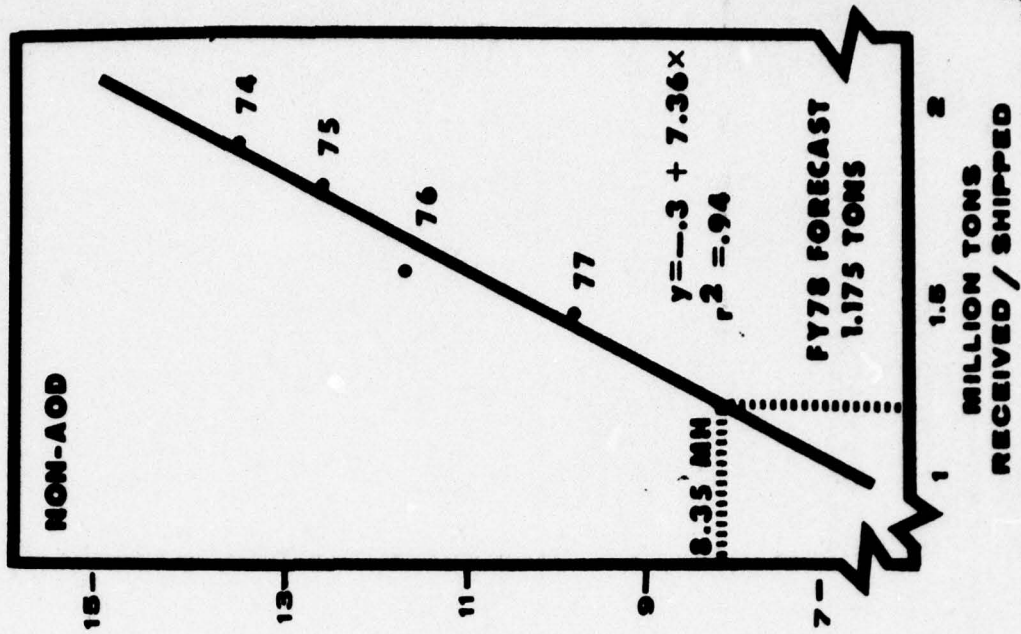
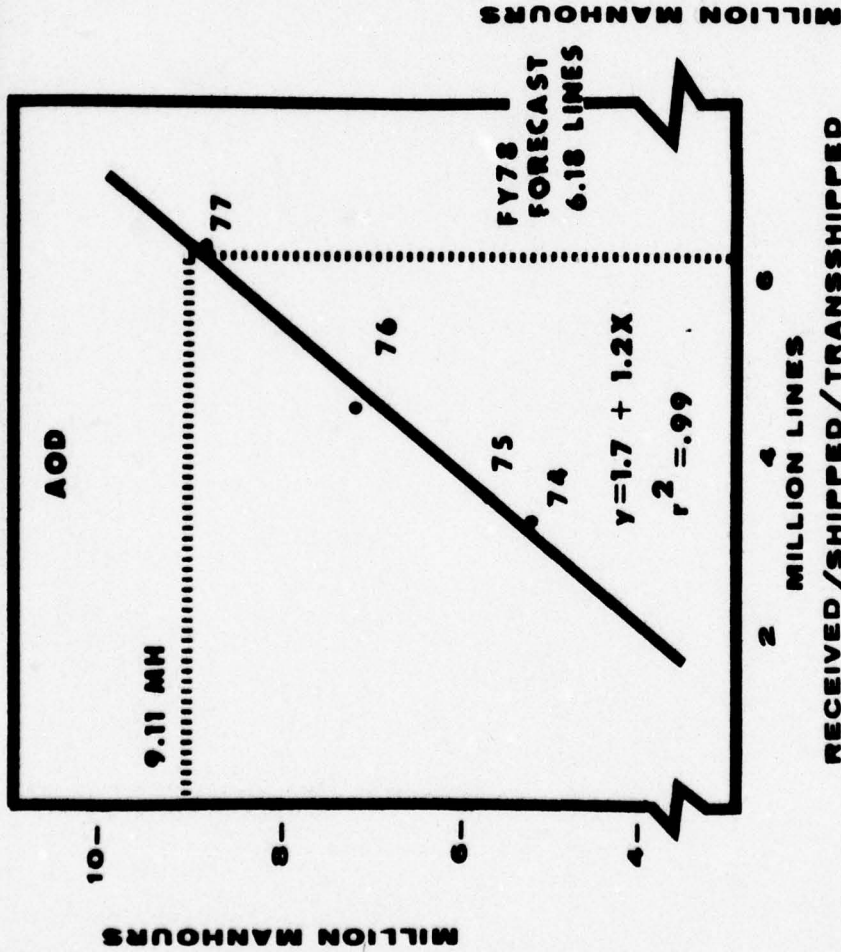


78-359-1  
11 APR 1978



Q

**SUPPLY VALIDATED MANYEARS**



VALIDATION	MIL MH	MY
AOD	9.11	5303
NON-AOD	8.35	4866
SUB-TOTAL		<u>10169</u>
BACKLOG (VALIDATED)		1215
TOTAL WORKLOAD (VALIDATED)		<u><u>11384</u></u>

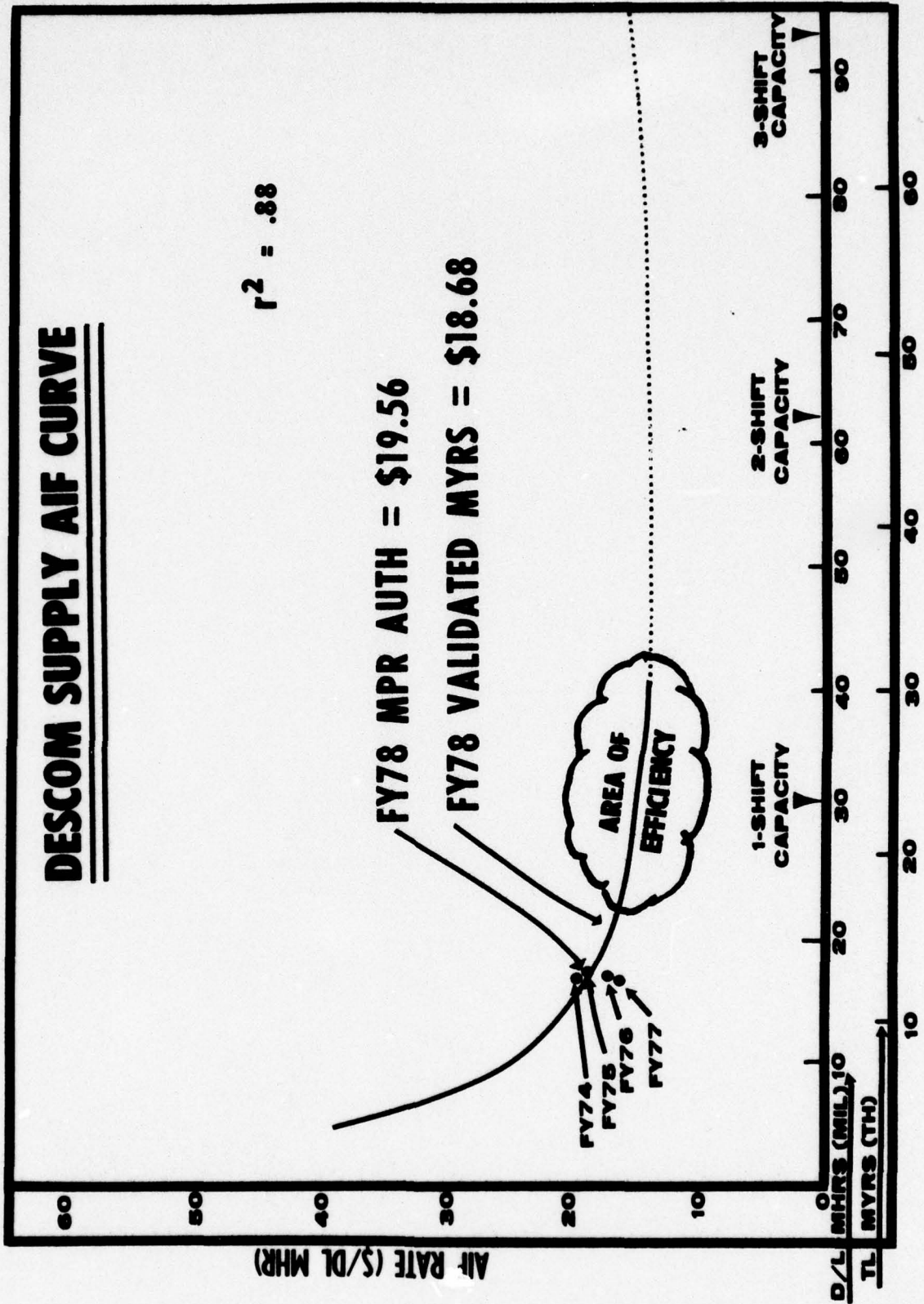
# 00-1347  
12 FEB 1978

# DESCOM SUPPLY AIF CURVE

$$r^2 = .88$$

FY78 MPR AUTH = \$19.56

FY78 VALIDATED MYRS = \$18.68



48-150  
3/17/78

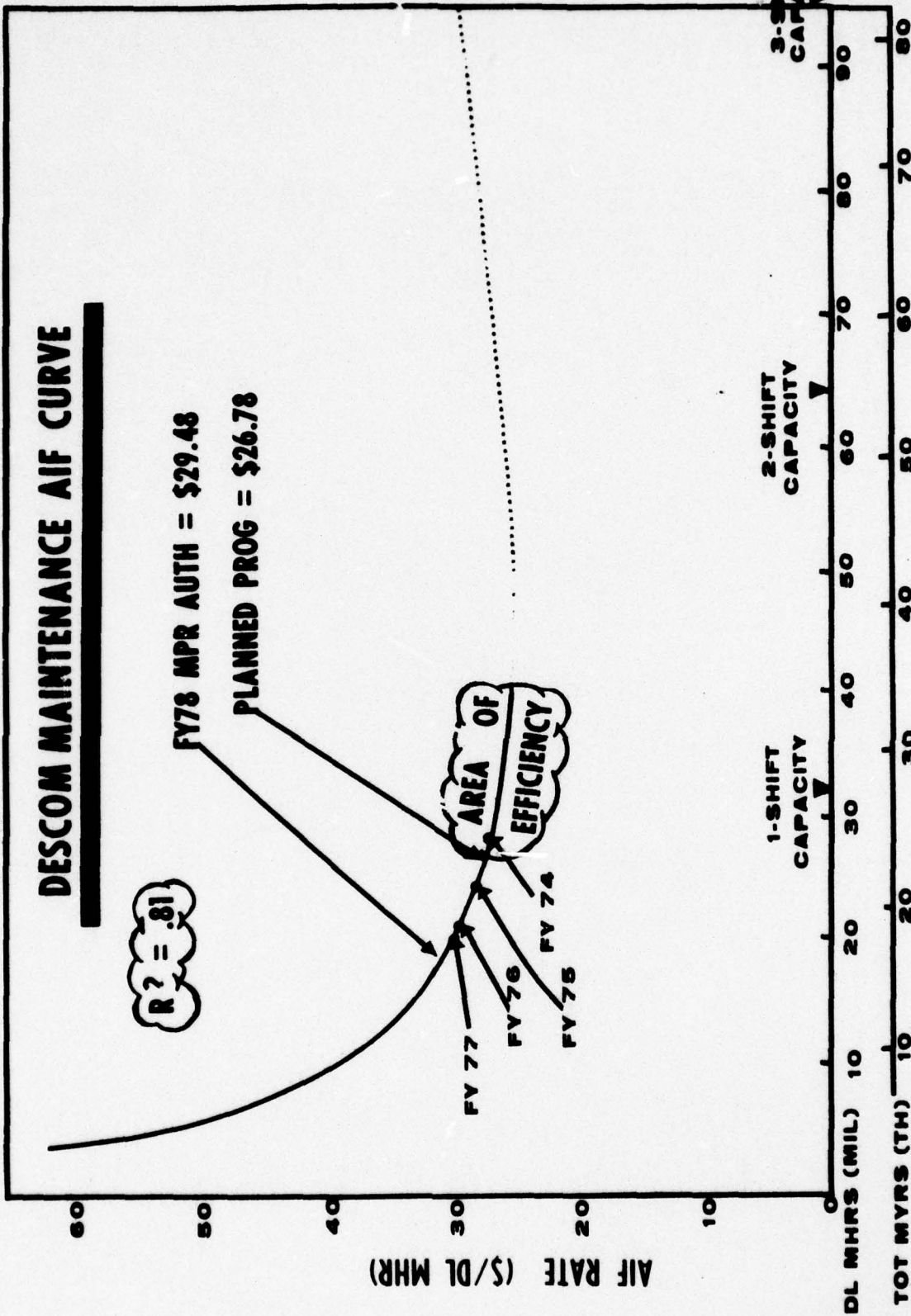
# DESCOM MAINTENANCE AIF CURVE

$R^2 = .81$

FY78 MPR AUTH = \$29.48

PLANNED PROG = \$26.78

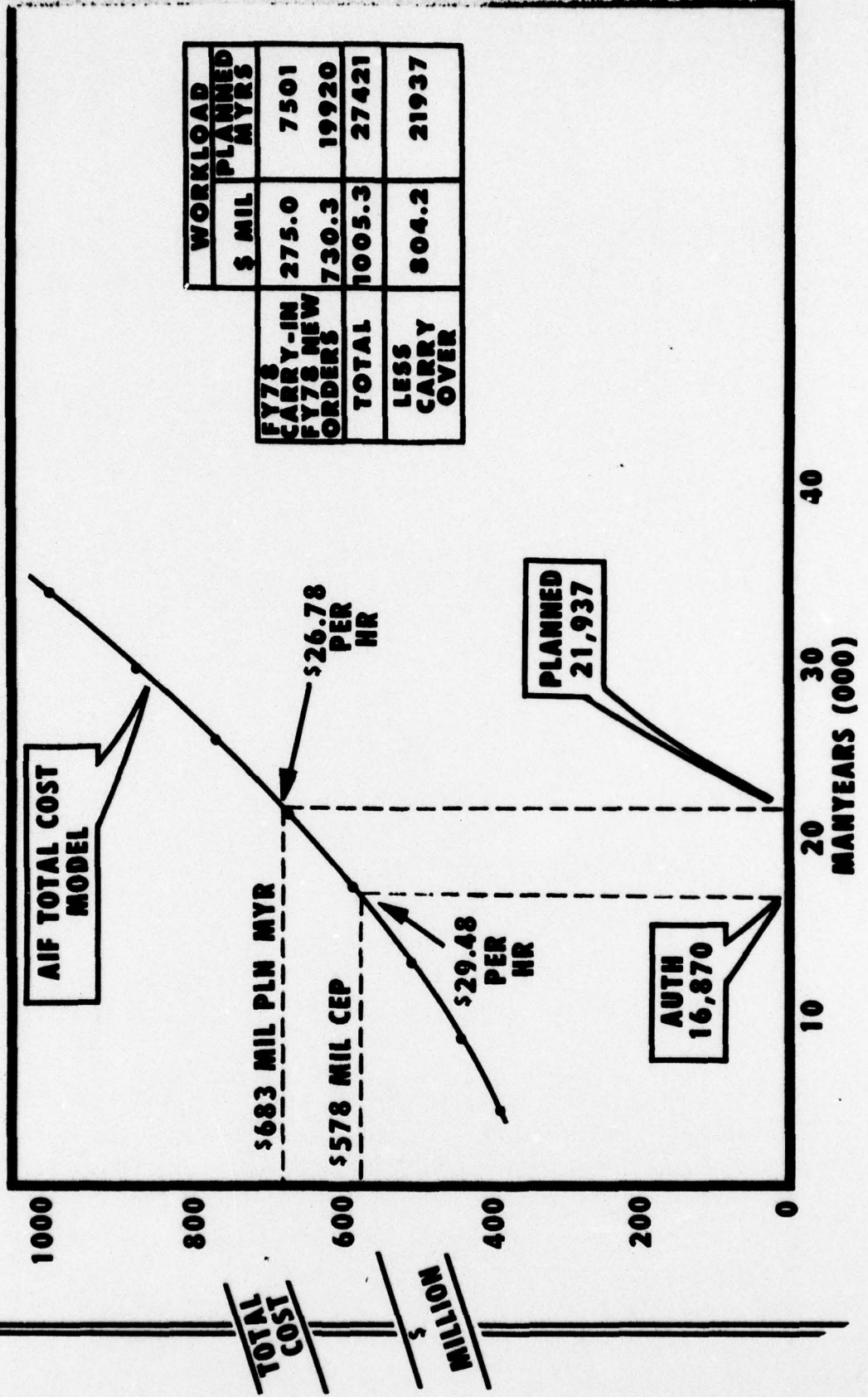
AIF RATE (\$/DL MHR)



8446  
28-144  
3/7/78



# FY78 MAINTENANCE VALIDATED MANYEARS

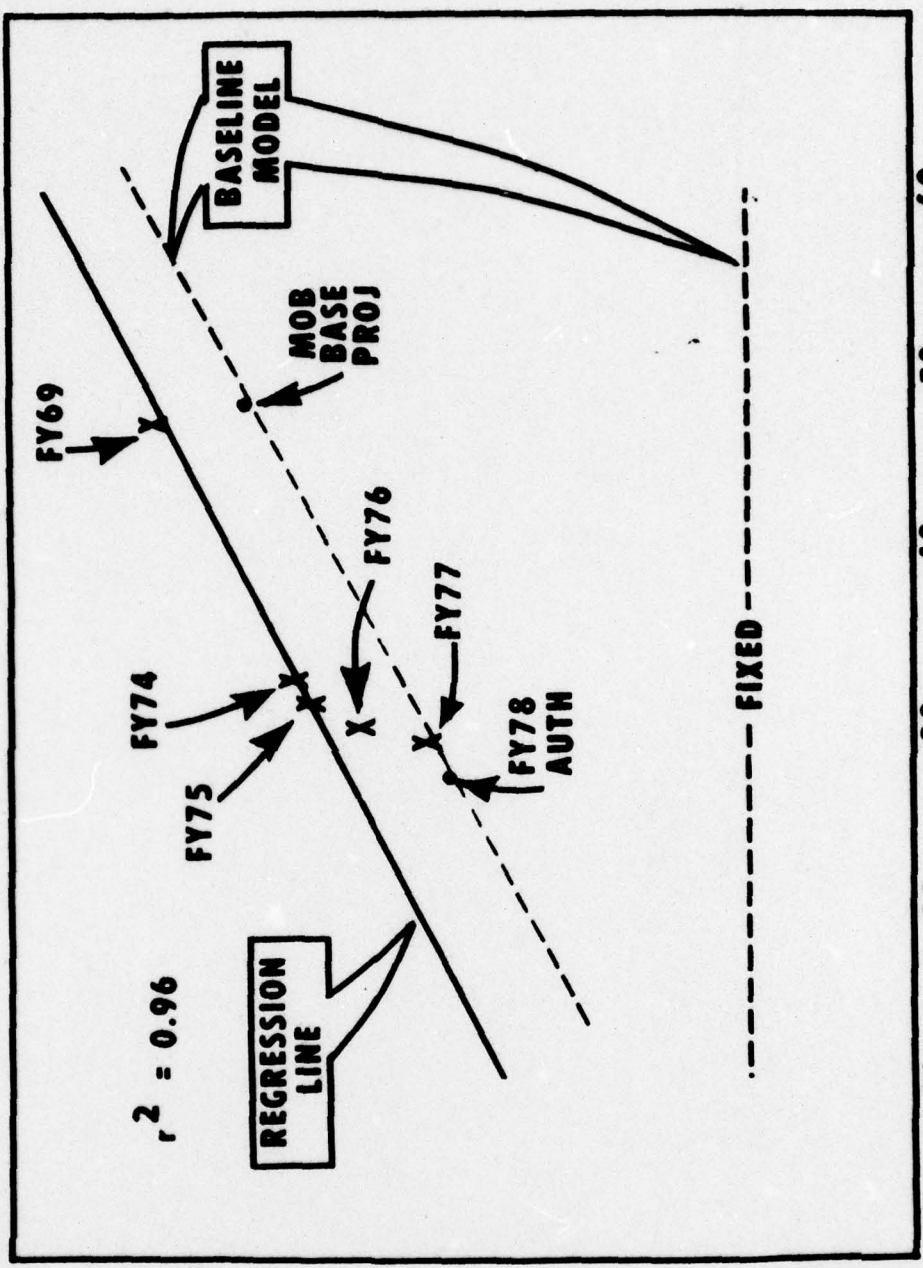


19

78-194  
12:00  
6

# INSTALLATION SPT PEOPLE VS MISSION STRENGTH

**DESCOM**



12

9

6

3

INST  
SPT  
PEOPLE

THOUS

MISSION STRENGTH (THOUS)

**FY78 VALIDATED PEACETIME WORKLOAD**

**VALIDATED  
MANYEARS**

**MISSION**

**GENERAL SUPPLIES (INCL AMMO)**

**11,384**

**MAINTENANCE**

**21,937**

**INSTALLATION SUPPORT**

**8,755**

**FIXED**

**(2,868)**

**VARIABLE**

**(5,887)**

**OTHER (MISC)**

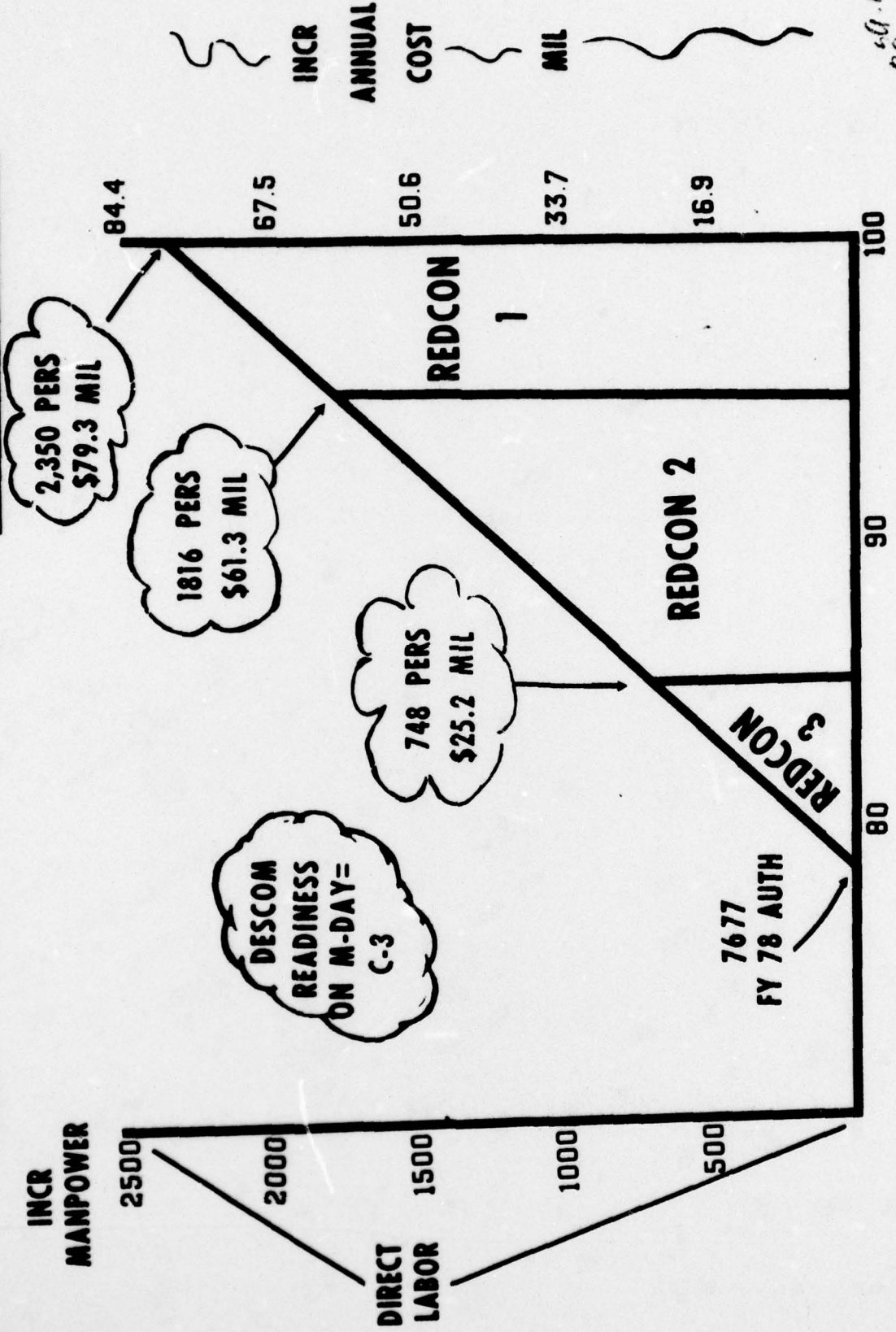
**1,179**

**TOTAL = 43,255**

**#78-344** 10 APR 78

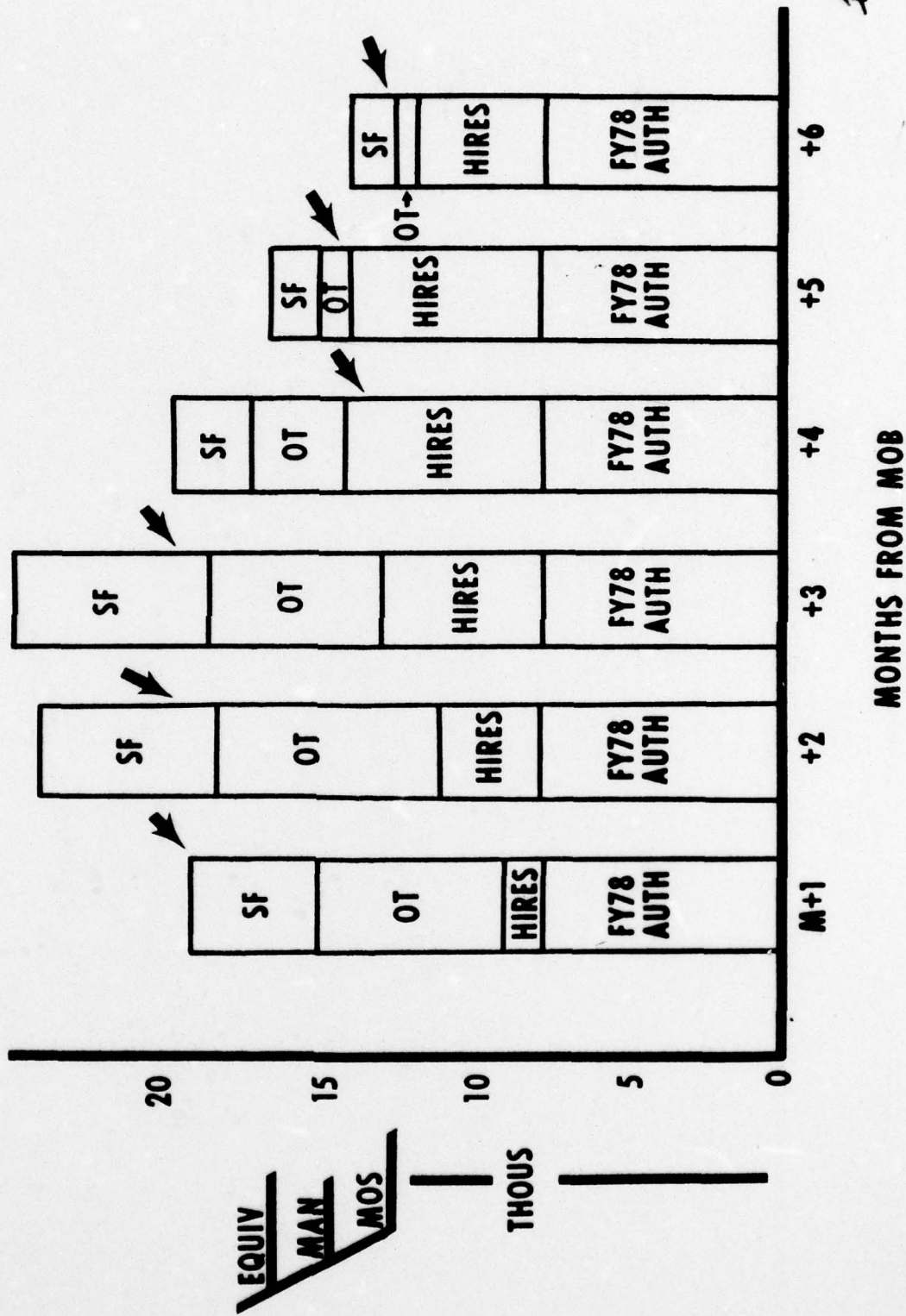


# DESCOM-COST OF READINESS-GENERAL SUPPLIES (INCL AMMO)

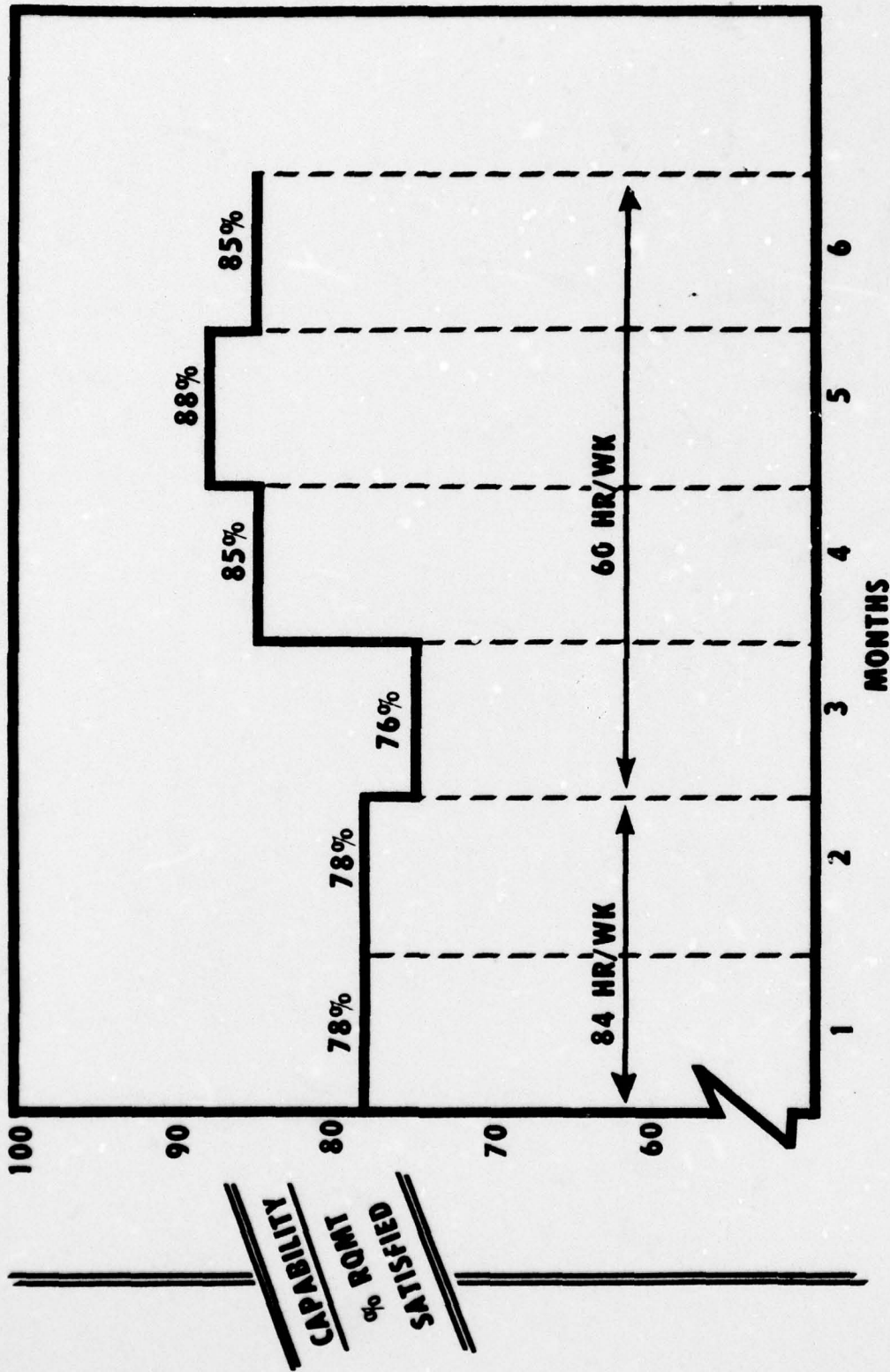


APR 30 1976  
10 APR 1976

# DESCOM GENERAL SUPPLIES (INCL AMMO) MOB REQUIREMENT VS MOB CAPABILITY



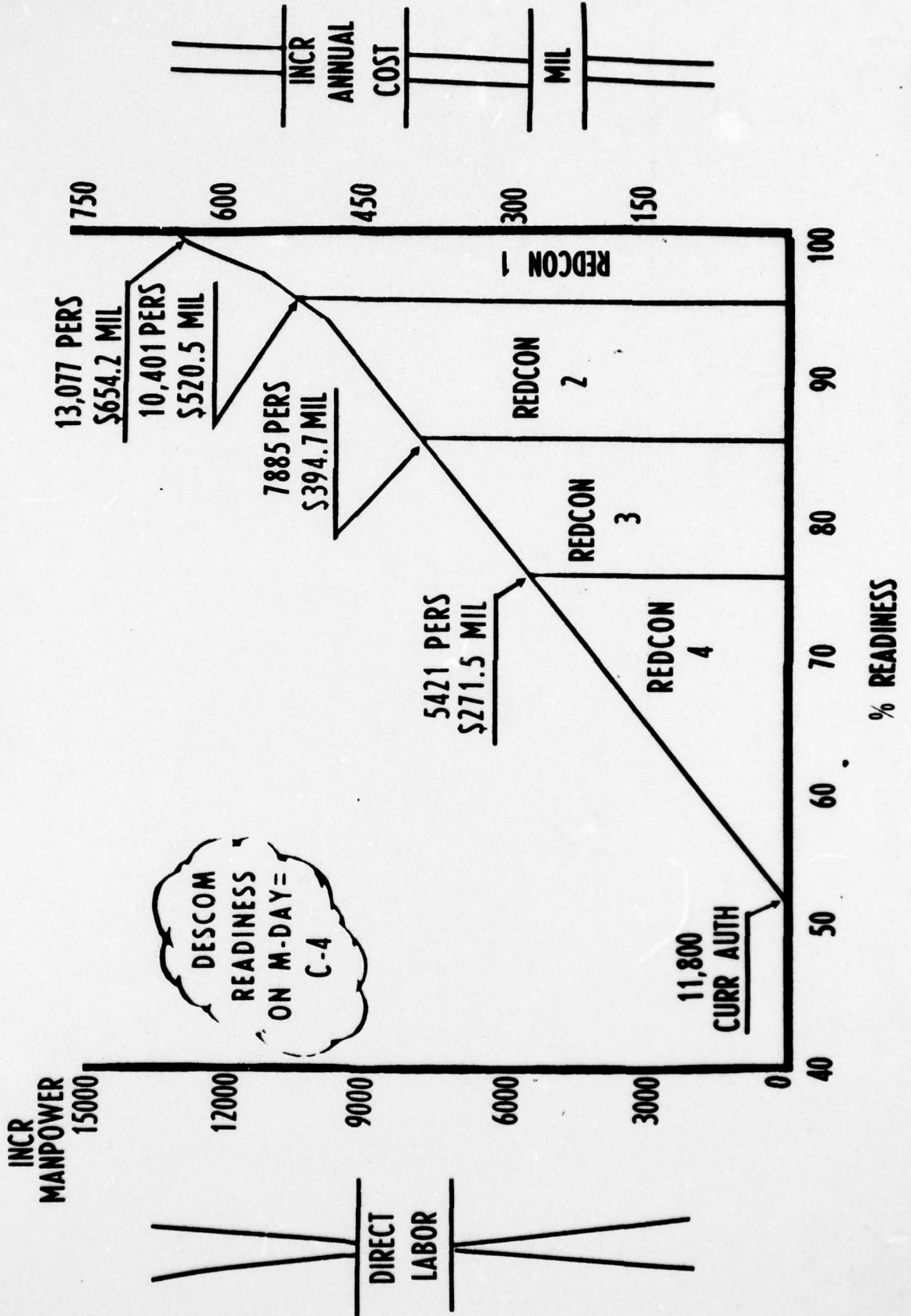
**DESCOM** % CAPABILITY TO SATISFY MOBILIZATION RQMT  
 GENERAL SUPPLIES (INCL AMMO)



#178-393-B  
 MAR 78

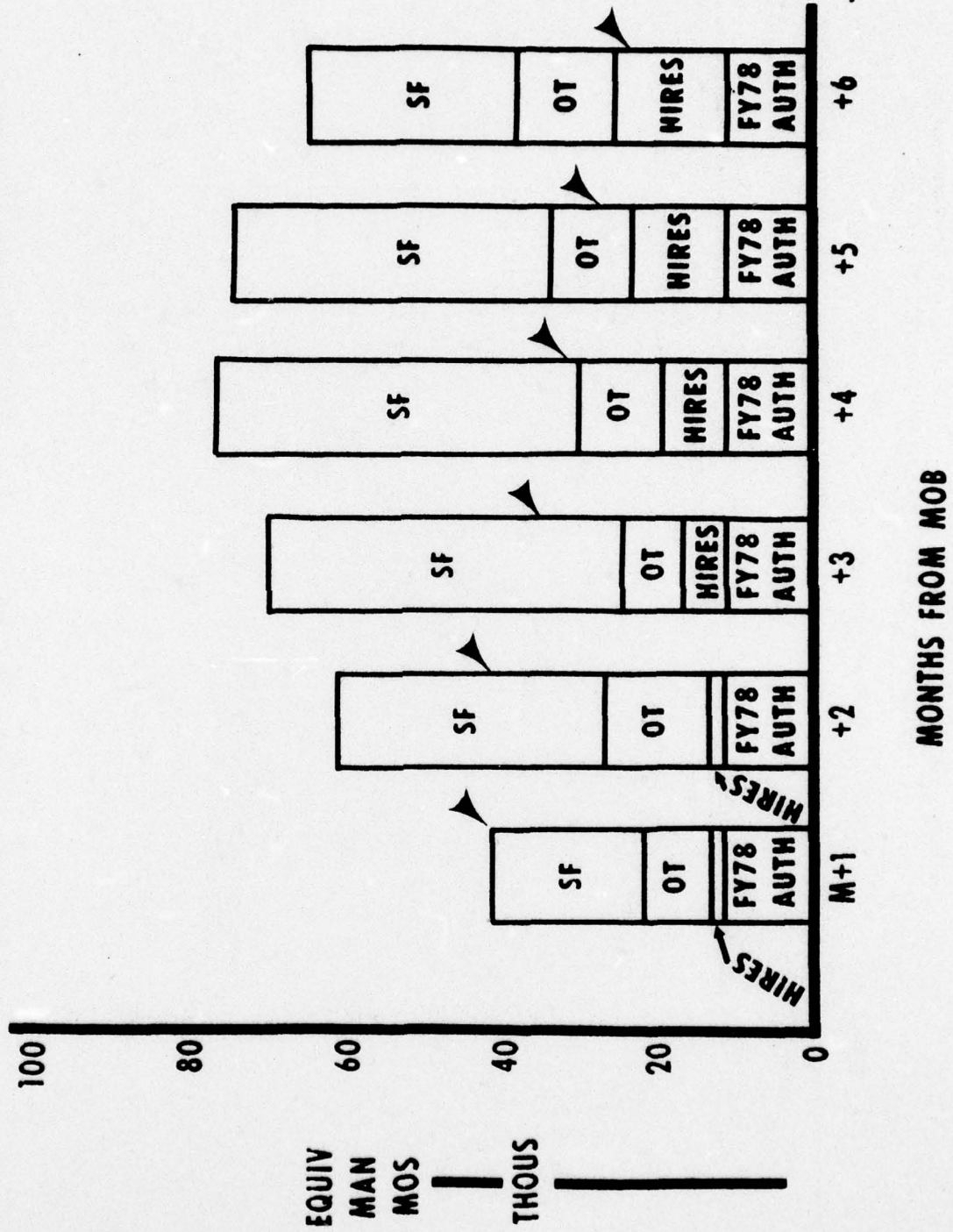


# DESCOM - COST OF READINESS - MAINTENANCE



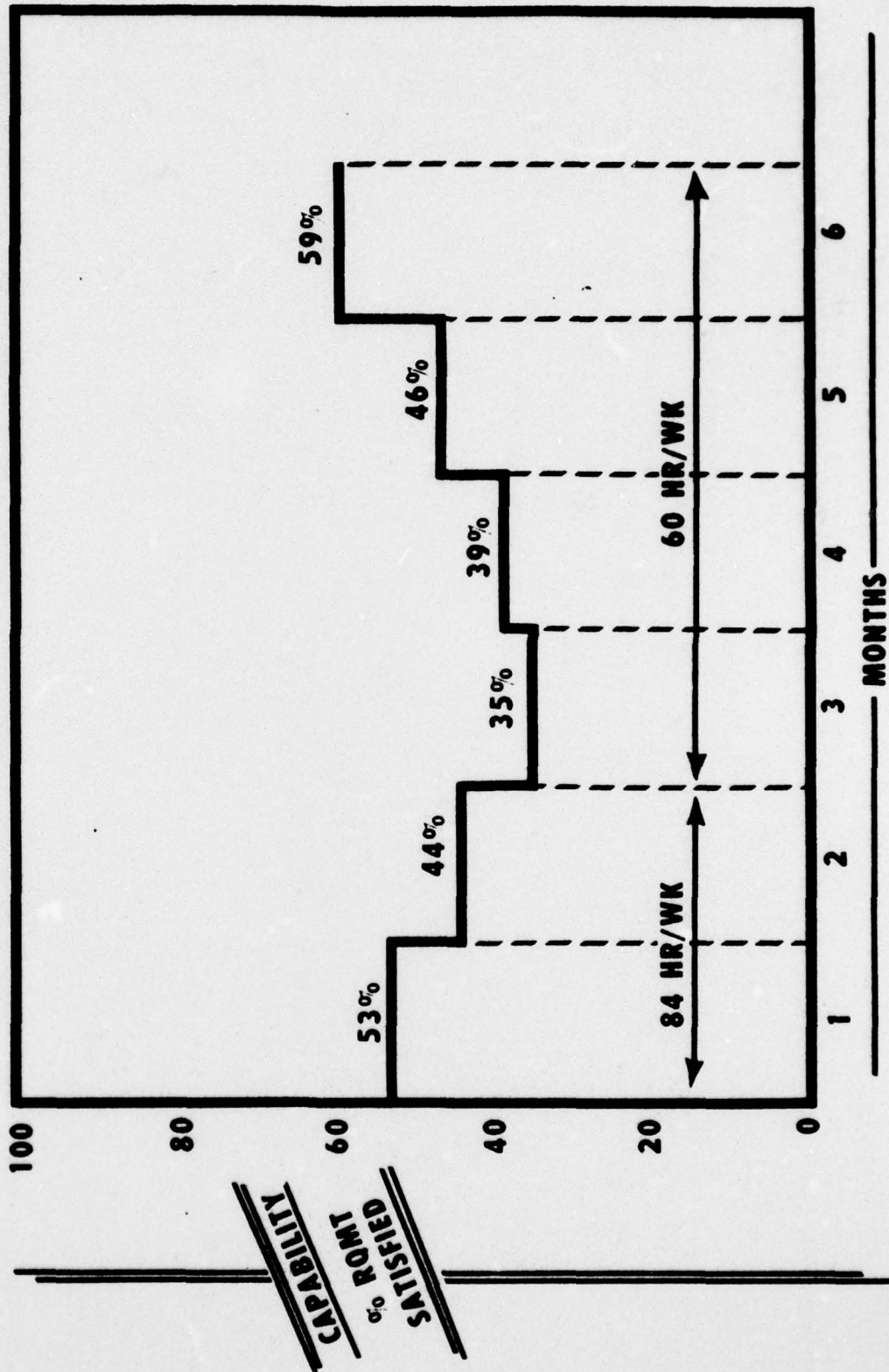
#77-2245A  
2-14-78

# DESCOM MAINTENANCE MOB REQUIREMENT vs MOB CAPABILITY



478-388, 28 Dec 48

**DESCOM**  
**% CAPABILITY TO SATISFY MOBILIZATION RQMT  
MAINTENANCE**



**CAPABILITY**  
**% RQMT**  
**SATISFIED**

48-401-13  
MAR 1952



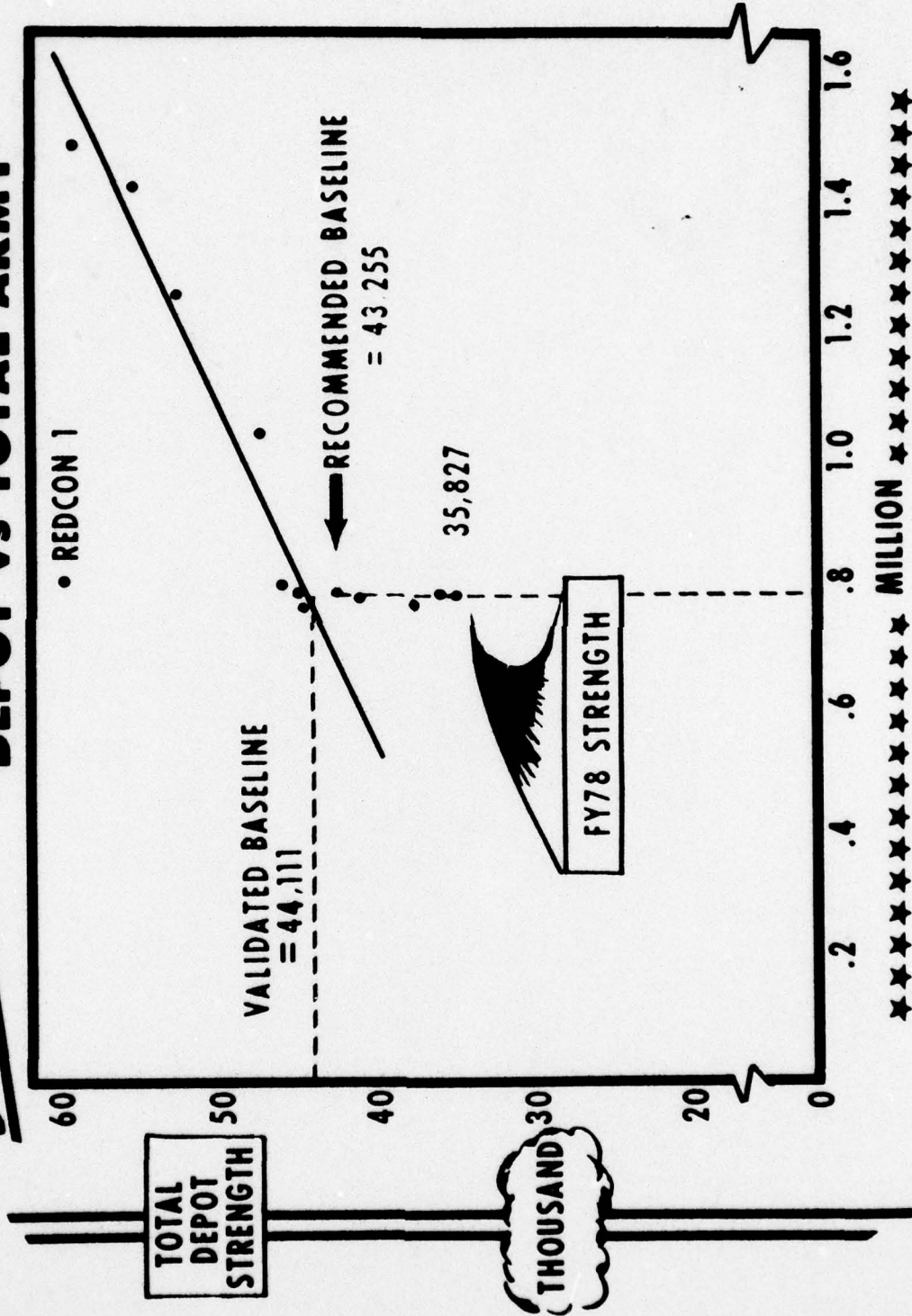
**TOTAL DESCOM**  
**BASELINE STRENGTH vs FY 78 AUTH**

	FY 78 AUTH	CURRENT REDCON	REDCON 2 (85%)		REDCON 1 (100%)	
			BASELINE	SHORTFALL	BASELINE	SHORTFALL
SUPPLY	10,061	3	11,021	960	13,078	3,017
MAINT	16,870	4	27,901	11,031	35,154	18,284
INST SPT	7754		9,633	1,879	11,092	3338
OTHER	1142		1,142	0	1,310	168
<b>TOTAL</b>	<b>35,827</b>		<b>49,697</b>	<b>13,870</b>	<b>60,634</b>	<b>24,807</b>

#08-345-0  
81 MAR 1978

# STRENGTH

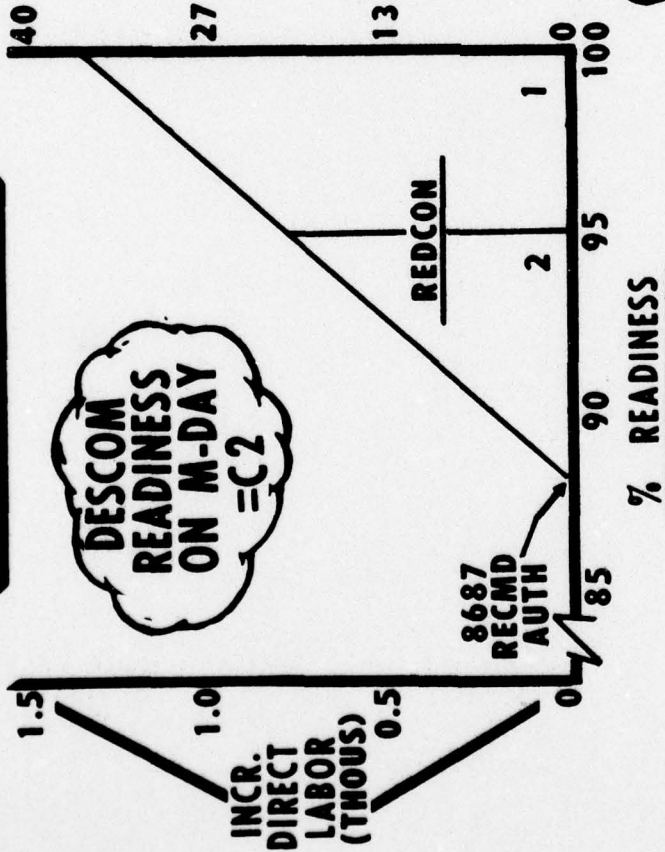
## DEPOT vs TOTAL ARMY



81 MAR 1978  
FY 78-81 S-P

# DESCOM RECOMMENDED BASELINE STRENGTH

COST OF READINESS

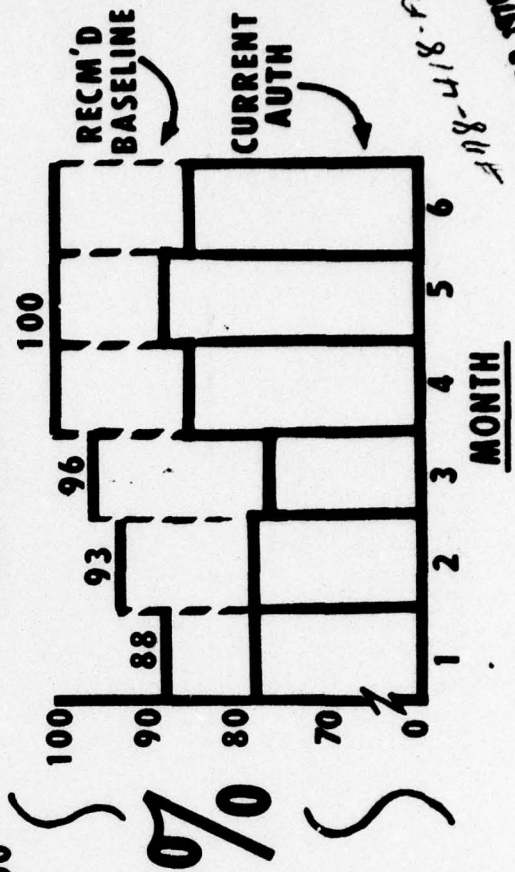


DESCOM READINESS ON M-DAY = C2

GENERAL SUPPLIES (INCL AMMO)

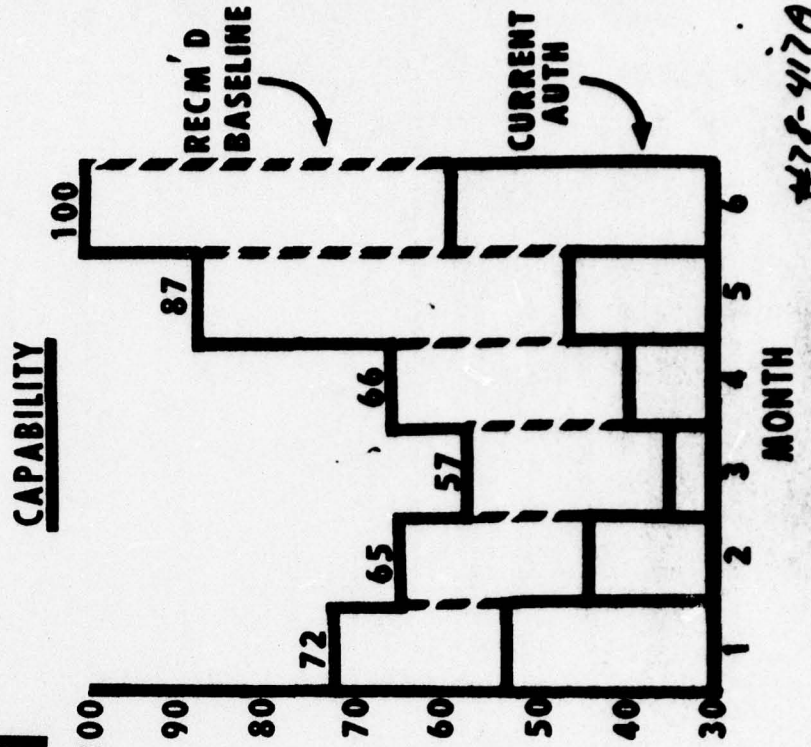
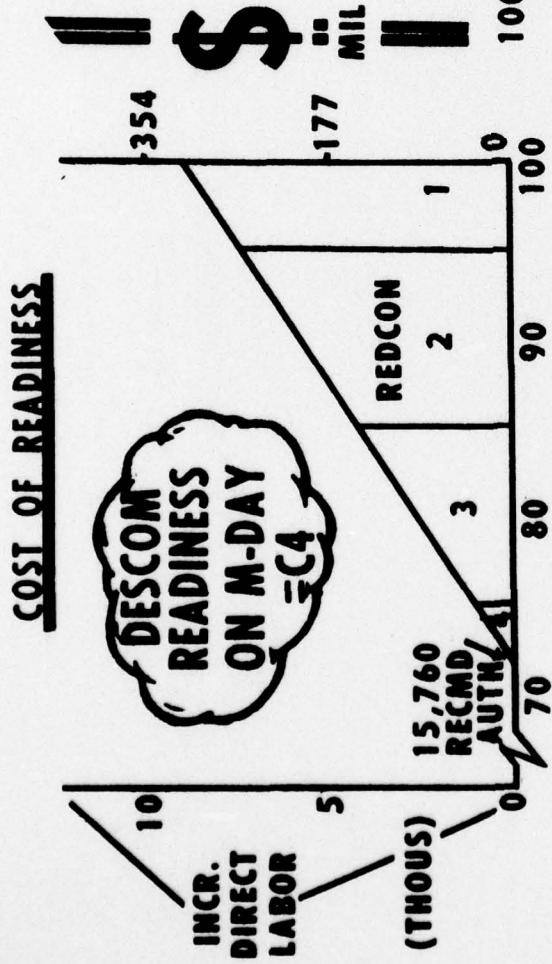
|| \$ || MIL ||

CAPABILITY





# DESCOM RECOMMENDED BASELINE STRENGTH



28)

# ON-GOING ACTIONS

- DEVELOP CONTINGENCY PLANS  
SMOOTH AMMO RQMTS  
STUDY MHE SHORTFALL
- IDENTIFY RESERVE/NATIONAL GUARD  
ROUNDOUT CAPABILITY
- REFINE MOBILIZATION REQUIREMENTS
- ACCELERATE MODERNIZATION TO GAIN  
PRODUCTIVITY
- WORK WITH MRC'S TO DETERMINE  
COMMERCIAL CONTRACT CAPABILITY

# 78-188

● MAR 1978