

Revised
4/22/68

BASIC AGREEMENT
No. _____
COVERING
RENTAL OF GE-645 COMPUTER EQUIPMENT

This Basic Agreement made this _____ day of _____ by and between the Massachusetts Institute of Technology, an educational institution organized and existing under the laws of the Commonwealth of Massachusetts with a principal office at Cambridge, Massachusetts (hereinafter referred to as MIT, or user), and the General Electric Company ("General Electric") a New York corporation having an office and place of business at the Large Systems Department, Phoenix, Arizona, anticipating the execution of individual purchase orders covering the rental of GE-645 computing equipment and associated peripheral equipments from time to time during the period of the Basic Agreement as follows:

1. APPLICATION

- A. All previous agreements between the parties, with the exception of the existing Agreement concerning patents dated November 5, 1965 relating to the GE635/645 Hardware and MULTICS Development, whether written or oral, express or implied, including but not limited to GE - MIT Agreement executed 6 November 1967 covering rental of GE645 equipment, are hereby superseded in their entirety by this agreement.
- B. The provisions of this Basic Agreement shall apply to and be referenced in each purchase order placed by MIT hereunder and each such purchase order shall be subject to acceptance in writing by General Electric. Each such purchase order shall consist of the provisions of this Basic Agreement plus the following information:
1. The GE-645 computer equipment and associated peripherals to be furnished by General Electric, by model number and quantity.

1/25/68

2. The location at which delivery and installation is to be accomplished.
 3. The number of scheduled operating shift maintenance periods required.
 4. The Technical and Purchasing Representatives having cognizance over the purchase order.
 5. Such other instructions or information as may be applicable to the particular purchase order or the equipment involved.
- C. The terms and conditions on the reverse side of the purchase order shall not apply.
- D. Whenever the printed sections on the face of the purchase order(s) are in conflict with the provision of this Basic Agreement, the latter shall govern, but where the typewritten sections or notations stamped on the purchase order are in conflict herewith, the typewritten portions or notations stamped on the purchase order shall govern.
- E. The initial purchase order under this Agreement shall specify those equipments to remain on site upon termination of the preceding GE-MIT Agreement executed 6 November 1967, plus those equipments scheduled to be added or substituted subsequent to 1 April 1968. Such equipments are itemized under System 1 in Exhibit I of this Agreement and constitute a simplex GE-645/MULTICS configuration.

2. PERIOD OF AGREEMENT

This Basic Agreement, when executed, shall become effective as of 1 April 1968 and shall remain in effect for a period of 9 months unless otherwise extended by subsequent mutual agreement of the parties.

3. DELIVERY & INSTALLATION OF EQUIPMENT

- A. Under the provisions of Paragraph 1.E, certain equipments (identified as System 1 in Exhibit I) currently installed as of 1 April 1968 shall be retained on-site under continuing in-line usage by MIT.
- B. In addition to the in-line equipment specified above, the balance of the equipment installed as of 1 April 1968 (identified as System 2 in Exhibit I) shall also be retained on-site for the purposes of back-up prior to and through-out the planned change-out of the System 1 equipment identified in Exhibit I. Subsequent to such change-out, the System 2 equipment shall be retained on-site at the option of General Electric and subject to the continuing agreement of MIT for the purposes of continuing back-up and of providing machine capacity for such General Electric GE645 program development activity as may be carried out in parallel with, and beneficial to, the MULTICS development effort.
- C. Upon written acceptance of any purchase order issued hereunder, subsequent to the initial order referenced in Paragraph 1.E, which calls for additional GE-645 system components, General Electric shall deliver the specified equipment, installed and ready for use at user's premises, within a maximum of 14 months from the date of such acceptance.
- D. User shall prepare the intended site and provide utility services in accordance with General Electric site preparation specifications.

- E. User shall furnish such labor as may be necessary for unpacking and placement of the delivered equipment.

4. RENTAL CHARGES

- A. The basic monthly rental charge for each item of GE-645 equipment and associated peripherals shall be itemized in Exhibit I.
- B. Rental charges for each item of the installed System 1 equipment listed in Exhibit I shall commence as of 1 April 1968. Rental charges for subsequent additional System 1 equipment shall commence as of the date that the equipment is installed and ready for use as certified by General Electric in writing and mutually acceptable to MIT. Charges for a fractional part of a calendar month shall be computed at the rate of 1/30 of the basic monthly rental per day. No rental shall be charged for the System 2 equipment referenced in Paragraph 3.B retained on-site for change-out overlap or GE usage purposes.
- C. System outages due to malfunction of the in-line equipment shall be compensated for under the provisions of Paragraph 6.F. System outage occurring during planned change-out of the in-line System 1 equipment shall be provided for by priority allocation to and use by MIT of the back-up equipment referenced in Paragraph 4.B, at no change in rental.
- D. Effective upon the expiration of 9 months from the effective date of this Agreement, General Electric may revise the basic monthly rental charges provided for herein. Ninety (90) days written notice of such revision shall be given to the user.

5. PERIOD OF USAGE

- A. The minimum rental period for the GE-645 equipment and associated peripherals listed under System 1 in Exhibit I shall be 9 months from the effective date of this agreement.

1/25/68

- B. At the expiration of the above period the user may terminate use of part or all of the installed equipment with 90 days written notice.
- C. Payment of the basic monthly rental charge for each item of installed equipment entitles the user to the use of that equipment at any time, exclusive of time required for preventive or remedial maintenance.

6. MAINTENANCE

- A. During the period of usage, General Electric shall make all necessary adjustments and repairs required to keep the installed equipment in good working order. On-site stand-by maintenance coverage shall be provided for one scheduled principal operating shift of 8 consecutive working hours plus lunch, 5 consecutive days per week (Monday through Friday), at no additional charge. The period for such principal operating shift shall be established in writing by the user. If any portion of this principal operating shift falls outside of the hours of 7:00 a.m. to 6:00 p.m., an additional 1% of the basic monthly rental will be charged.
- B. Additional contiguous operating shifts of 4 or 8 working hours duration with stand-by maintenance coverage will be provided at the user's option within 30 days after receipt of the appropriate purchase order. The following schedule of charges shall apply for maintenance coverage on such additional operating shifts:

1/25/68

| <u>No. of Schedl. Operating Shifts</u> | <u>Charges as a % of Basic Monthly Charges</u> | | |
|--|--|---------------|---------------|
| | <u>5 Days</u> | <u>6 Days</u> | <u>7 Days</u> |
| 1 | N.C. | 2% | 3% |
| 1-1/2 | 3% | 4% | 5% |
| 2 | 5% | 7% | 9% |
| 3 | 8% | 10% | 12% |

- C. Preventive maintenance shall be performed under a mutually established schedule. Such maintenance shall be at no additional charge if scheduled to occur during a scheduled operating shift with stand-by maintenance coverage or between the hours of 7:00 a.m. and 6:00 p.m. If any portion of the scheduled preventive maintenance falls outside of the above periods, an additional 1% of the basic monthly system rental will be charged.
- D. Scheduled periods of principal operating shifts or of preventive maintenance may be revised by the user upon 30 days written notice.
- E. Occasional remedial maintenance, outside the scheduled operating shifts with stand-by maintenance coverage, shall be provided by General Electric upon request, if reasonably available, at the rate of \$28.00 per man hour. The minimum per call charge shall be two hours. There shall be no charge for remedial maintenance started during a scheduled operating shift with stand-by maintenance coverage which extends into the next scheduled shift or is postponed to the next shift.
- F. If malfunction in any GE-645 equipment itemized under System 1 in Exhibit I occurs, through no fault or negligence of the user, during a scheduled operating shift with stand-by maintenance coverage such that the in-line GE-645 System 1 is unable to perform useful work during the remainder of that shift, the equivalent equipment in the back-up system (Paragraph 3.B, System 2) will be made available on

priority basis by General Electric for subsequent scheduled operating shifts until the requisite repairs have been effected.

7. OTHER CHARGES

- A. All transportation, rigging and drayage charges upon equipment both from and to the General Electric Plants, are to be paid by the user. Packing labor for return of equipment will be supplied by the user. Necessary packing cases for the return of the equipment and a representative to supervise the packing will be furnished by General Electric without charge. Return transportation charges shall in no case be greater than the cost to return the equipment to Phoenix, Arizona.
- B. The user shall pay for any permit or license fees, taxes, charges or assessments imposed by any duly constituted public authority based on the renting or use of the order equipment, or otherwise based on this Basic Agreement and purchase orders issued hereunder; exclusive, however, of property taxes or other taxes, charges or assessments based on ownership of the equipment, franchise taxes and taxes based on income.

8. INVOICING AND PAYMENT

- A. General Electric shall submit invoices in duplicate the first of each month covering rental and other applicable charges for the current month and any other charges as may be billable from the previous month. Payment of said invoices shall be made to General Electric Company, Large Systems Department, within 20 days
- B. In the event any monthly use charge remains unpaid for a period of 60 days or more after becoming due, General Electric may terminate the applicable purchase order(s) by giving notice thereof in writing to the user, and within 15 days after the date of such notice, the total unpaid balance of the monthly use charges for the total period(s) specified

herein shall thereupon become immediately due and payable to the General Electric, and General Electric may remove from the user's premises any or all of the computer equipment covered by the purchase order(s) with or without process of law and without demand or further notice.

9. OPERATING SUPPLIES

Cards, magnetic and paper tapes, ribbons, platens and other supplies used in the operation of on-site equipment will be furnished by the user and will meet General Electric's specifications.

10. PUBLICATION RELEASE

General Electric will not identify the user in General Electric publications, or in material written for placement in public media, as a customer of the General Electric products covered by this Agreement without the advance written approval by the user.

11. PROPRIETARY DATA

A. Copies of internal documentation containing technical information related to the detail design of the GE-645 equipment may be transmitted from time to time by General Electric to the user to aid in the user's development of applications for this system. This information is currently proprietary to General Electric and will not be made available to the public for some time.

11. B. The user will maintain the confidential nature of this information and will not disclose said information to third parties without the written permission of the Large Systems Department.

1/25/68

Further, the user will restrict distribution of said information within its organization to those personnel with a need to know for the above development purposes.

In each case such restriction applies so long as the confidential information classification is maintained by General Electric or for a period of 2 years from the date of execution of this Agreement.

- C. "Confidential information" shall mean technical information and documentation relating to the GE-645 disclosed to the user in writing and so designated on the face of the documentation, unless such information was in the user's prior possession without binder of secrecy, or unless such information was heretofore or hereafter becomes part of the public knowledge or literature, or unless such information is hereafter received by the user without binder of secrecy from a third party.
- D. The above provisions shall not be construed as granting any license or other rights to the user except as specifically provided herein.

12. OWNERSHIP AND POSSESSION

- A. General Electric hereby represents and warrants that it is the lawful owner of the computer equipment, and that the user, upon complying with all the terms and provisions of this Agreement, shall have peaceable and quiet possession of said equipment. All computer equipment, tools, fixtures, spare parts and/or test equipment provided by General Electric in the performance of work under purchase orders issued hereunder shall at all times be and remain the property of General Electric.

1/25/68

- B. The user shall not remove the computer equipment from the location(s) specified in each purchase order issued hereunder without General Electric's written consent.
- C. Tags affixed to the computer equipment and bearing the name of General Electric shall not be relocated or removed without General Electric's written consent.

14. ALTERATIONS AND ATTACHMENTS

Alterations or attachments to the installed equipment may be made at user's expense upon receipt of General Electric's written consent.

15. LAWS, RULES AND REGULATIONS

- A. In the performance of purchase orders issued hereunder, General Electric shall comply with all applicable laws, regulations, orders, ordinances and other rules established by the duly constituted public authority or authorities. General Electric shall obtain all necessary permits and licenses required for the renting, installation or use of the computer equipment.

16. INSURANCE AND LIABILITY

- A. General Electric shall maintain workmen's compensation insurance in accordance with applicable Federal and State laws and regulations, and employer's liability and occupational disease liability insurance in the amount of \$100,000 for each occurrence. Unless otherwise provided hereunder, General Electric shall also maintain, with respect to and during the period of any purchase order issued hereunder, (1) comprehensive general liability insurance and, if subcontractors are used, contractor's protective insurance, each in the amounts of \$200,000/400,000 for bodily injury and \$100,000 for property damage; (2) comprehensive automobile liability insurance,

1/25/68

including but not limited to, coverage for non-owned vehicles, in the amounts of \$200,000/400,000 for bodily injury and \$100,000 for property damage and (3) such other insurance as may be mutually acceptable to both parties from time to time.

- B. During the period the computer equipment is in the possession or control of the user, or is in transit, General Electric and its insurers, if any, relieve the user of responsibility for all risks of loss or damage to said equipment.
- C. Each party shall indemnify and save the other harmless from any and all claims or demands, including the costs, expenses and reasonable attorney's fee incurred on account thereof, that may be made by any person for bodily injury or damage to property occasioned solely by the party's acts or omissions.
- D. Neither General Electric nor its subcontractors, or the employees or agents of any of them, shall be deemed to be employees or agents of the user, it being understood that General Electric and its subcontractors are independent contractors for all purposes and at all times; and General Electric shall be solely responsible for the withholding or payment of all Federal, State and Local personal income taxes, social security, unemployment and sickness disability insurance and other payroll taxes with respect to General Electric's employees, including contributions from them when and as required by law.
- E. In no event shall either party be liable for special or consequential damages. Either party's liability on any other claim for loss or liability, including negligence, arising out of or connected with

any purchase order issued hereunder, or the use of any equipment covered thereunder (including, but not limited to, loss or liability arising from breach of contract) shall in no case exceed one year's total basic monthly charges for the computer equipment; except as provided in Paragraph 17, "Infringement of Patents, Trademarks or Copyrights" hereof, with respect to General Electric's liability.

17. INFRINGEMENT OF PATENTS, TRADEMARKS OR COPYRIGHTS

- A. General Electric shall indemnify the user for any loss, damage, expense or liability that may result by reason of any infringement or claim of infringement of any United States patent, trademark or copyright by normal use of the computer equipment. The user shall so indemnify the General Electric Company where such infringement or claims of infringement arises solely from General Electric's adherence to user's written instructions or directions which do not involve either General Electric's commercial merchandise or items of General Electric's origin, design or selection. Each party shall have control of the defense and shall defend, at its own expense, any action for which it is responsible hereunder. Each party shall notify the other promptly of any claim ^{of} ~~of~~ infringement, and the party not responsible in each case shall cooperate with the responsible party, at the expense of the responsible party, in every reasonable way to facilitate the defense of any such claim.
- B. General Electric and MIT are bound by the Agreement relating to patents dated November 5, 1965, which remains in force.

PVC

18. RETURN OF COMPUTER EQUIPMENT

Upon completion of the rental period covering the computer equipment, user shall return said equipment to General Electric in the same condition as when received, ordinary wear and tear excepted. The user shall bear any cost of restoring its premises upon removal of the computer equipment.

19. ASSIGNMENTS

A. Any assignment of this Agreement or of any purchase order issued hereunder, in whole or in part, or of any interest therein by either party without the other's written consent, except an assignment confined solely to monies due or which may become due thereunder, shall be void. Such an assignment of monies which attempts to grant rights to the assignee in addition to the receipt of monies, or which attempts to preclude the parties hereto from dealing solely and directly with each other in all matters pertaining to this Agreement or to any purchase orders issued hereunder, including the negotiation of amendments thereto or settlements of amounts due thereunder, shall be valid only insofar as it grants the right to receive monies, and shall be void in every other respect.

B. The user shall not sublease any of the computer equipment without General Electric's written consent, nor shall the user mortgage, pledge or otherwise encumber said equipment.

20. BANKRUPTCY

Either party may terminate any or all outstanding purchase orders issued hereunder by notice in writing, in the event that the other makes an assignment for the benefit of creditors, or admits in writing inability to pay debts as they mature; or a trustee or receiver of the other, or of any substantial part of the other's assets, is appointed by any court

or a proceeding is instituted under any provision of the Federal Bankruptcy Act by the other, or against the other, and is acquiesced in or is not dismissed within 60 days or results in an adjudication in bankruptcy.

21. AMENDMENTS

The terms and provisions of this Agreement shall not be amended or modified without specific written provision to that effect, signed by both parties hereto. No oral statement of any person whomsoever shall in any manner or degree modify or otherwise affect the terms and provisions of this Agreement.

22. LIMITATION OF LIABILITY

The liability of the General Electric Company arising out of the furnishing of the maintenance service covered herein, shall be limited to keeping the same in good working order. General Electric shall not be liable for failure to keep such equipment in working order when such failure is due to causes beyond its reasonable control, such as acts of God, acts of civil or military authority, priorities, strikes, floods, epidemics, quarantine restrictions, war, riots, delays in transportation, car shortages and inability due to causes beyond its reasonable control to obtain necessary labor, materials, or manufacturing facilities; nor shall General Electric, in any event, be liable for consequential or special damages.

23. CONSTRUCTION AND PERFORMANCE

The construction and performance of this contract shall be governed by the laws of the State of New York.

1/25/68

-15-

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the day and year first above written.

BY Paul W. Kusich

TITLE _____

GENERAL ELECTRIC COMPANY

BY Ralph S. La Montagne X

TITLE Manager - Advanced Programs

WJM/JJS/plj

12/26/67

EXHIBIT I

GE 645 SYSTEM 1

MTI-MULTICS

3/15/68

| ITEM | MODEL NO. | DESCRIPTION | QTY. | REMARKS | UNIT NO. RENTAL | NO. RENTAL |
|--------|-----------|----------------------------------|------|---|--------------------|---------------|
| 1 (a) | CP8031A | Central Processor (Mod A) | 1 | | | |
| 1 (b) | CP8031B | Central Processor (Mod B) | 1 | Replaces 1a CP8031A, wk. June 24-26 | \$ 14,560 | \$ 14,560 |
| 2 | CP8600 | Processor Port Pair | 2 | 1 included in CP8031 price | 260 | 260 |
| 3 | MM8030 | Memory Controller (w. 32K) | 1 | | 6,760 | 6,760 |
| 4 | OPT802 | Active Unit Ports | 5 | 2 included in MM8030 price | 84 | 252 |
| 5 | OPT815 | Interrupt Cell Groups | 2 | 1 included in MM8030 price | 105 | 105 |
| 6 | AMM500 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 7 | CAB601 | Additional Memory Cabinet | 1 | | 260 | 260 |
| 8 | AUM600 | Auxiliary Memory (32K) | 1 | | 4,475 | 4,475 |
| 9 | AMM600 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 10 (a) | MM8030 | System Controller (w. 32K) Mod A | 1 | | | |
| 10 (b) | MM8040 | System Controller (w. 32K) Mod B | 1 | Replaces Mod A 8030 (Item 10a) week July 8-12 | 6,760 | 6,760 |
| 11 | OPT802 | Active Unit Ports | 5 | 2 included in Controller price | 84 | 252 |
| 12 | OPT815 | Interrupt Cell Groups | 2 | 1 included in Controller price | 105 | 105 |
| 13 | AMM600 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 14 | CAB601 | Additional Memory Cabinet | 1 | Mod B 64K Memory, ship week April 1-5 | 260 | 260 |
| 15 | AUM600 | Auxiliary Memory (32K) | 1 | | 4,475 | 4,475 |
| 16 | AMM600 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 17 | CLK600 | System Clock | 1 | | 760 | 760 |
| 18 | MSW600 | Memory Switch | 1 | | 50 | 50 |

\$ 57,234

EXHIBIT I
GC 645 SYSTEM 1
MT-MULTICS

| ITEM | MODEL NO. | DESCRIPTION | QTY. | REMARKS | UNIT NO. RENTAL | NO. RENTAL |
|---------------|--------------------|--|--------|--|-----------------|------------|
| 19 (a) (b) | DC8031A DC8031B | General I/O Controller (Mod A) General I/O Controller (Mod B) | 1 1 | Replaces Mod A DC8031A (Item 19a) week June 24-28 | 5,620 | 5,620 |
| 20 | MIP600 | GIOC Port Pairs | 2 | 1 included in GIOC Price | 260 | 260 |
| 21 | PIP600 | Priority Level Group | 4 | 2 included in GIOC Price | 65 | 130 |
| 22 | CAB600 | Adapter Cabinet | 2 | 1 included in GIOC Price | 990 | 990 |
| 23 | HP600 | High Performance Channel | 3 | 1 included in GIOC Price | 680 | 1,360 |
| 24 | TPA600 | Indirect Peripheral Adapter | 1 | 1 included in GIOC Price | N/C | N/C |
| 25 | IPC600 | Indirect Peripheral Channel | 6 | 6 included in GIOC Price | N/C | N/C |
| 26 | CAA600 | Character Asynch. Adapter | 1 | | 195 | 195 |
| 27 | CAC600 | Character Asynch. Channels | 3 | | 85 | 255 |
| 28 | TPA600 | Teletype Adapter | 3 | | 420 | 1,260 |
| 29 | TTC600 | TTA Channel Groups (8 ch.) | 6 | 2 ea. for TTS635, 630 & 625 | 125 | 750 |
| 30 | TTL600 | TTA Extensions | 6 | | 65 | 390 |
| 31 | DGA600 | Dialing Adapter | 1 | | 130 | 130 |
| 32 | DGC600 | Dialing Channels | 8 | | 35 | 280 |
| 33 | CSA600 | Character Synch. Adapter | 1 | | 195 | 195 |
| 34 | CSC600 | Character Synch. Channels | 1 | | 85 | 255 |
| 35 | DDA600 | Direct Disc Adapter | 1 | | 680 | 680 |
| 36 | DSCLIF | Disc Storage Controller | 1/2 | Share with System 2 | 3,360 | 1,680 |
| 37 | DSULIF | Disc Storage Unit (Disc File) | 1 | Share with System 2 | 4,100 | 4,100 |
| 38 | DEMLIF | Disc Electronics Unit (Logic) | 1/2 | Share with System 2 | N/C | N/C |
| 39 | DCULIF | Disc Compressor Unit | 1/2 | Share with System 2 | N/C | N/C |

\$ 18,530

EXHIBIT I
GE 645 SYSTEM 1
MIL-MOBILITIES

Page 3 of 5
 3/15/68

| ITEM | MODEL NO. | DESCRIPTION | QTY. | REMARKS | UNIT NO. | RENTAL | MO. |
|------|-----------|--------------------------------|-------|---|----------|--------|--------|
| 40 | EMU302 | Extended Memory Unit (7H Drum) | 1 | | 12,430 | \$ | 12,430 |
| 41 | EMC302 | Extended Memory Controller | 1 | Replaces Mod A Control, Aug. 5-9 | N/C | | N/C |
| 42 | APP302 | Additional Port Pairs | 1 | 1 included in EMU302 price | N/C | | N/C |
| 43 | MUJ302 | Cooling Unit for EMU302 | 1 | | N/C | | N/C |
| 44 | MSC388 | Mass Storage Controller (RACE) | 1 | Share with System 2 | 835 | | 417 |
| 45 | MSJ388 | Mass Storage Unit | 1 | Share with System 2 | 3,020 | | 1,510 |
| 46 | COB030 | Master Console | 1 | | 420 | | 420 |
| 47 | MTC404 | Magnetic Tape Controller | 1 1/2 | Modified April 1-5 to share with System 2 | 1,545 | | 772 |
| 48 | MTH301 | MT Handler (60KC-7 Track) | 6 | | 615 | | 3,690 |
| 49 | CRZ201 | Card Reader | 1 | | 680 | | 680 |
| 50 | CPZ201 | Card Punch | 1 | | 860 | | 860 |
| 51 | PRM202 | Printer, Extended Char. Set | 1 | | 1,665 | | 1,665 |
| 52 | PSC200 | Peripheral Switch Console | 1 | | 175 | | 175 |
| 53 | OPT510 | Switch Unit | 16 | | 42 | | 630 |
| 54 | MG8031 | Motor Generator Set | 1 | Included in price of PSC200 | 320 | | 320 |
| 55 | OPT825 | Power Sequencer | 1 | | 17 | | 17 |
| 56 | AMA600 | Adapter Maintenance Aid | 1 | | N/C | | N/C |

\$ 23,586
 57,234
 18,530
\$ 99,350

EXHIBIT I

GE 645 SYSTEM 2

Page 4 of 5
3/15/68

MIT-GE DEVELOPMENT SYSTEM

| ITEM | MODEL NO. | DESCRIPTION | QTY. | REMARKS | UNIT NO. | NO. |
|------|-----------|---------------------------------|------|---|----------|--------|
| 1 | CP8031A | Central Processor (Mod A) | 1 | 1 included in CP8031 Price | 14,560 | 14,560 |
| 2 | CPP600 | Processor Port Pair | 2 | | 260 | 260 |
| 3 | MM3030 | Memory Controller (w. 32K) | 1 | 2 included in MM3030 Price | 6,760 | 6,760 |
| 4 | OPT802 | Active Unit Ports | 5 | 1 included in MM3030 Price | 84 | 252 |
| 5 | OPT815 | Interrupt Cell Groups | 2 | | 105 | 105 |
| 6 | AMM600 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 7 | CAB601 | Additional Memory Cabinet | 1 | MM3030 to be replaced by AM3030, ship Feb. 12-16 on an interim basis. CAB601 to ship week of July 15-19 | 260 | 260 |
| 8 | AUM600 | Auxiliary Memory (32K) | 1 | | 4,475 | 4,475 |
| 9 | AMM600 | Added Memory (32K) | 1 | | 4,475 | 4,475 |
| 10 | XCLK60 | System Clock | 1 | | 760 | 760 |
| 11 | DC8031A | General I/O Controller (Mod A) | 1 | | 5,620 | 5,620 |
| 12 | MIP600 | GI0C Port Pairs | 2 | 1 included in GI0C Price | 260 | 260 |
| 13 | PIP600 | Priority Level Group | 4 | 2 included in GI0C Price | 65 | 130 |
| 14 | CAB600 | Adapter Cabinet | 1 | 1 included in GI0C Price | N/C | N/C |
| 15 | HPC600 | High Performance Channel | 3 | 1 included in GI0C Price | 680 | 1,360 |
| 16 | IPA600 | Indirect Peripheral Adapter | 1 | 1 included in GI0C Price | N/C | N/C |
| 17 | IPC600 | Indirect Peripheral Adapter | 1 | 1 included in GI0C Price | N/C | N/C |
| 18 | CAM600 | Character Asynch. Adapter | 1 | Mod B (Modified) replaces Mod A | 195 | 195 |
| 19 | CAC600 | Character Asynch. Channels | 3 | | 85 | 255 |
| 20 | TMA600 | Teletype Adapter | 3 | | 420 | 1,260 |
| 21 | TTC600 | TMA Channel Groups (8 ch. ea.) | 6 | Mod B (modified) replaces Mod A - 1 ea. for TMS 625, 630 & 635 | 125 | 750 |
| 22 | TTL600 | TMA Extensions | 6 | | 65 | 390 |
| 23 | APP302 | Additional Port Pair for EMU302 | 1 | To allow memory reconfiguration | 260 | 260 |

EXHIBIT I

GE 645 SYSTEM 2

Page 5 of 5
3/15/68

MIT-GE DEVELOPMENT SYSTEM

| ITEM | MODEL NO. | DESCRIPTION | QTY. | REMARKS | UNIT NO. | |
|------|-----------|-------------------------------|------|--|----------|-------|
| | | | | | RENTAL | MO. |
| 24 | CAB600 | Adapter Cabinet | 1 | Modified | 990 | 990 |
| 25 | DGA600 | Dialing Adapter | 1 | | 130 | 130 |
| 26 | DGC600 | Dialing Channels | 8 | | 35 | 280 |
| 27 | CSA600 | Character Synch. Adapter | 1 | Mod B (Modified) replaces Mod A | 195 | 195 |
| 28 | CSC600 | Character Synch. Channels | 3 | Ship Feb. 12-16 | 85 | 255 |
| 29 | DDA600 | Direct Disc Adapter | 1 | | 680 | 680 |
| 30 | DSC11F | Disc Storage Controller | 1/2 | Share with System 1 Ship week of Feb. 12-16 | 3,360 | 1,680 |
| 31 | DSU10F | Disc Storage Unit (Disc File) | 1 | | 4,100 | 4,100 |
| 32 | DEU11F | Disc Electronics Unit (Logic) | 2 | | N/C | N/C |
| 33 | DCU10F | Disc Compressor Unit | 2 | | N/C | N/C |
| 34 | MDU200 | Magnetic Drum Unit | 1 | Modified-share with Sys. 1 2 Add'l-ship March 4-8 | 3,425 | 3,435 |
| 35 | MDC200 | Magnetic Drum Controller | 1 | | N/C | N/C |
| 36 | CO8030 | Master Console | 1 | | 420 | 420 |
| 37 | MTG404 | Magnetic Tape Controller | 1 | | 1,545 | 773 |
| 38 | MTH301 | MTP Handler (60KC 7-Track) | 1 | | 615 | 2,460 |
| 39 | CRZ201 | Card Reader | 1 | 680 | 680 | |
| 40 | CPZ201 | Card Punch | 1 | 860 | 860 | |
| 41 | PRT202 | Printer, Extended Char. Set | 1 | 1,665 | 1,665 | |
| 42 | MSC388 | MassStorage Controller (RACE) | 1 | Share with System 1 Share with System 1 | 835 | 418 |
| 43 | MSU388 | Mass Storage Unit | 1 | | 3,020 | 1,510 |

TOTAL \$ 20,531
\$ 46,862
\$ 67,393