NETWORK OPERATING SYSTEM

SHORT TERM OBJECTIVE

IS TO DEVELOP A PROTOTYPE NETWORK OPERATING SYSTEM

FOR A 100 MEGABIT / SECOND FIBER OPTIC DATA BUS.

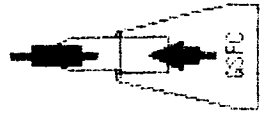PAGE 348 INTENTIONALLY BLANK

IMPORTANT TO SPACE STATION BECAUSE

CUSTOMER INTERFACE SOFTWARE NEEDS TO

BE DEVELOPED TO SUPPORT A LARGE NUMBER
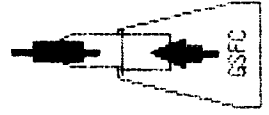
OF INDEPENDENTLY OPERATED INSTRUMENTS

AND PAYLOADS

LONG TERM OBJECTIVE

IS TO ESTABLISH GUIDELINES FOR WRITING A

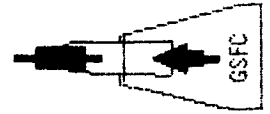DETAILED SPECIFICATION FOR A SPACE STATION

NETWORK OPERATING SYSTEM.

TO BE STUDIED :

- IMPLEMENTATION OF ISO / OSI STANDARD

- BUS ARBITRATION EFFICIENCY

- REMOTE DIAGNOSTICS

- RELIABILITY

- NOISE SENSITIVITY

- ERROR DETECTION AND HANDLING

G S F C APPROACH TO DEVELOPING AN NOS :

— AN NOS STATE—OF THE—ART STUDY

— AN RFP FOR A PROTOTYPE NOS
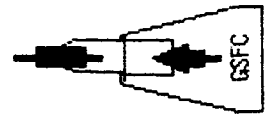
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COMMERCIALLY AVAILABLE SYSTEMS

UNIX BASED

UNIVERSE_NET   BY   CHARLES RIVER DATA SYSTEMS

NFS   BY   SUN MICROSYSTEMS

IBM—PC BASED

NET/ONE   BY   UNGERMANN—BASS

NETWARE   BY   NOVELL, INC.

MAJOR MILESTONES

* STATE OF THE ART STUDY REPORT   5/85

* AWARD OF PROTOTYPE NOS (COMPETED) CONTRACT   7/85

* SOFTWARE REQUIREMENTS REVIEW   9/85

* PRELIMINARY DESIGN REVIEW   1/86

* CRITICAL DESIGN REVIEW   7/86

* DELIVERY OF PROTOTYPE NOS   12/86

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