A. FUNCTIONAL REQUIREMENTS

(1) DATA ENTRY
   (A) AUDIO NOISE FILTERING
   (B) AUDIO TRANSCRIPTION/TRANSLATION
   (C) HARD COPY SCANNING (GROUND PHOTOS/DOCUMENTS)
   (D) SELECTIVE TEXT EXTRACTION & RETENTION

(2) DATA ROUTING & RECORDS MANAGEMENT
   (A) AUTOMATED CLUSTERING OF RELATED INFORMATION
   (B) AUTOMATED GISTING (SUMMARIES OF DOCUMENTS & MESSAGES)
   (C) AUTOMATED WEIGHTING OF DOCUMENTS FOR REVIEW
   (D) AUTOMATED ROUTING, FILING, & PURGING

(3) DATA RETRIEVAL
   (A) VERY LARGE DATA BASE SEARCH
   (B) AUTOMATED ACCESS TO AND QUERYING OF REMOTE DATA BASES TO INCLUDE OPEN SOURCE INTERACTIVE DATA BASES
   (C) MENU DRIVEN MULTIPLE DATA BASE/MULTI-LEVEL SECURITY ACCESS PROGRAMS
   (D) VERY LARGE DATA BASE SEARCH
   (E) NATURAL LANGUAGE QUERY CONVERSION TO BOTH SQL AND

ENCLOSURE (8)
UNSTRUCTURED TEXT SEARCH STRATEGIES

(F) UNSTRUCTURED FREE TEXT SEARCH INCLUDING NUMBERS
(G) ASSOCIATED WORDS AND CONCEPTS RETRIEVAL PROGRAM
(H) AUTOMATED FLAGGING OF DATA CHANGES
(I) ABILITY TO RETRIEVE LIKE IMAGES FROM ANY ANGLE
(J) UNDERSTANDING OF NUMERIC VARIATIONS AND EQUIVALENTS

(4) DATA BASE CONTRUCTION & MANAGEMENT

(A) "FREE FORM" DATA BASE CAPABILITY (ABILITY TO BUILD LARGE "AD HOC" TACTICAL DATA BASES WITHOUT HAVING TO DEFINE FIELDS AND FORMATS)

(B) NATURAL LANGUAGE/MENU DRIVEN DATA BASE CONSTRUCTION
(C) AUTOMATED DATA BASE MAINTENANCE & UPDATES
(D) MULTIPLE EXTERNAL INPUTS TO SINGLE DATA BASE
(E) AUTOMATED VERIFICATION & CLEANSING OF DATA
(F) AUTOMATED TEXT EXTRACTION
(G) AUTOMATED TAGGING OF DATA ELEMENTS WITH LEVEL OF CLASSIFICATION AND SOURCE OF DATA

(H) INTEGRATED TEXT AND IMAGES IN DATA BASE
(I) MULTI-MEDIA DATA BASES
(J) HOT LINKS (DATA TO DATA, DATA TO GRAPhICS)
(K) ELECTRONIC BIOGRAPHICS/ENEMY VOICE LIBRARY
(L) ELECTRONIC EMITTER "FINGERPRINT" LIBRARY
(M) AUTOMATED RECORDS MANAGEMENT (E.G. AUTOMATIC ARCHIVING, RECORD DESTRUCTION USING EXPERT SYSTEM HEURISTICS)
(N) DISTRIBUTED OPTICAL SCANNING FOR RELAYING DOCUMENTS
TO CENTRAL STORAGE FACILITY

(O) CAMARAS AND/OR VIDEOS WITH DIGITAL FILM PACKS ALLOWING DIRECT ENTRY OF FIELD IMAGING INTO SYSTEM

(5) DATA COLLECTION & EXPLOITATION

(A) DESKTOP PUBLISHING
(B) GRAPHICS & BRIEFING AIDS
(C) ELECTRONIC NOTEPADS
(D) GLOBAL E-MAIL
(F) GRAPHICAL VISUALIZATION OF TRENDS, LINKAGES
(G) MENU OF MODELING/SIMULATION PACKAGES (E.G. WARGAMES BASED ON RELEVANT CAMPAIGN PLANS, FORCE ON FORCE NET ASSESSMENT PACKAGES)
(H) AUTOMATED STATISTICAL ANALYSIS (MENU DRIVEN WITH DESCRIPTION BASED ON OUTPUT)
(I) EXPERT SYSTEM PRE-SCREENING INDICATIONS & WARNINGS "OBSERVABLE"
(J) AUTOMATED FLAGGING OF "HOT" WORDS AND CHANGES IN WORD CONTENT FROM ONE TIME PERIOD TO NEXT (E.G. INCREASE IN USE OF WORK "NATIONALIZATION" IN MEDIA TRANSLATIONS FROM PARTICULAR COUNTRY)
(K) DIGITAL MAP OVERLAYS AND GRID COORDINATE OUTPUT
(L) TAILORED NO-NOTICE MAP PRODUCTION (1:25,000 DESIRED, 1:50,000 ACCEPTABLE) USING DEFENSE MAPPING AGENCY STANDARD INPUT AND/OR TACTICALLY COLLECTED IMAGERY; SHOULD PERMIT TAILORED PRODUCTION, I.E. SELECTIVE PRINT OUT MERGING AND PRINTING DATA
WHICH IN HARD COPY WOULD REQUIRE CUTTING & PASTING)

(M) AUTOMATED OVERLAY MAINTENANCE (E.G. CHANGING SYMPOLOGY TO REFLECT AUTOMATED IDENTIFICATION OF ENEMY UNIT MOVEMENT)

(6) KNOWLEDGE-BASE CONTRUCTION & MANAGEMENT

(A) MENU-DRIVEN ACCESS TO PREVIOUS QUERIES
(B) AUTOMATED REPEAT QUERIES
(C) MENU-DRIVEN FLAGGING OF KEY WORDS, LOCATIONS
(D) GRADUAL AUTOMATED AND USER-ASSISTED DEVELOPMENT OF KEY LINKS AND CONCEPTS

(7) "INTELLIGENT" COLLECTION MANAGEMENT

(A) AUTOMATED COLLECTION ASSET INVENTORY & STATUS
(B) AUTOMATED MATCHING OF ASSETS & REQUIREMENTS
(C) AUTOMATED "TASKER" GENERATION (ALL DISCIPLINES)
(D) AUTOMATED TRACKING OF SATISFACTION/TICKLER
(E) "ALTERNATIVE COLLECTION STRATEGIES" GENERATION
(F) RAW/FINISHED COLLECTION EVALUATION TOOL

(8) ADMINISTRATIVE & SECURITY MANAGEMENT

(A) INTELLIGENCE JOURNAL
(B) CLASSIFIED DOCUMENTS CONTROL/BAR CODING
(C) VOICE MESSAGE CAPABILITY
(D) ELECTRONIC "MARKING" OF CLASSIFICATION BY WORD
(E) AUTOMATED SANITIZATION TO ANY LEVEL (I.E. KNOWING
NOT ONLY THE LEVEL OF EACH WORD/FIGURE, BUT ALSO APPROVED ALTERNATIVE TERMS)

(F) AUTOMATED COMPARISON OF LIKE/UNLIKE REPORTS

(G) QUICK SEARCH ORDER OF BATTLE (OoB) AND TERMINOLOGY/NOMENCLATURE LIBRARY

(H) QUICK SEARCH JOINT/OTHER SERVICE PUBS LIBRARY

(I) AUTOMATION OF ALL FORMS AND REPORTS

(J) AUTOMATED NAME TRACES ON REFUGEES & PRISONERS (E.G. FROM DATA BASE COMPRISED OF MEDIA, TELEPHONE BOOKS, STATE DEPARTMENT VISA REQUESTS, OTHER UNCLASSIFIED & UNCLASSIFIED SOURCES)

(K) AUTOMATED ACCESS/QUERY AUDIT TRAIL

(L) AUTOMATED COMPUTER VIRUS DETECTION/ERADICATION (CAN BE STAND-ALONE IN PROTOTYPE)

(M) SMART INBOXES (PRIORITIZING & SCREENING)

(N) COMPUTER AIDED INSTRUCTION (CAI) FOR ANY FUNCTION

(O) INSTANT RETRIEVAL OF ANY MARINE CORPS ORDER, FIELD MANUAL, OPERATIONAL HANDBOOK, OR TECHNICAL MANUAL INCLUDING OTHER SERVICE, JOINT, AND ALLIED DOCUMENTS

(P) INSTANT RETRIEVAL AT APPROPRIATE LEVEL OF CLASSIFICATION OF ANY OPERATIONAL OR CONTINGENCY PLAN SUPPORTED BY THE MARINE CORPS
B. PERFORMANCE REQUIREMENTS. TO BE DETERMINED (TBD) BY TECHNICAL SPECIALISTS

(1) RELIABILITY
(2) AVAILABILITY
(3) MAINTAINABILITY
(4) STORAGE & MEMORY SIZING
(5) ACCURACY
(6) TIMING
(7) FLEXIBILITY
(8) DATA BASE INTEGRITY
(9) BACKUP, RESTART, RESTORE

C. SECURITY REQUIREMENTS

(1) SOFTWARE
(2) HARDWARE
(3) COMMUNICATIONS
(4) DATA
(5) PHYSICAL
D. HARDWARE REQUIREMENTS

(1) DATA ENTRY
(2) SCANNING
(3) KEYBOARD/MOUSE
(4) VOICE
(5) WORKSTATION
(6) ALTERNATIVE SCREEN(S)
(7) PROCESSING
(8) STORAGE
(9) PRINTING & PLOTTING

E. HUMAN ENGINEERING REQUIREMENTS

(1) TIME MANAGEMENT

(A) ONE TIME DATA ENTRY WORLD-WIDE
(B) UNATTENDED HARD-COPY SCANNING
(C) UNATTENDED INDEXING/GISTING/ROUTING
(D) COLOR GRAPHICS & PRINT-OUT
(E) MULTI-MEDIA INTEGRATION & PRODUCTION
(F) CURSOR CONTROL DEVICE
(G) AUDIO OUTPUT, AUDIO COMMANDS
(H) OTHER
(2) FRIENDLINESS

(A) SINGLE SWITCH START-UP ON FRONT OF DEVICE
(B) INFORMATIVE FEEDBACK SYSTEM
(C) SHORTCUTS FOR FREQUENT USERS
(D) FREQUENT DIALOGUE CLOSURE (NO HANGING QUERIES OR COMPLEX COMMAND SEQUENCES; SIMPLE ENGLISH INSTRUCTIONS TO ACCOMPLISH SIMPLY TASKS)
(E) SIMPLE ERROR HANDLING
(F) EASY REVERSAL OF ACTIONS
(G) LOCAL OPERATOR CONTROL
(H) MINIMAL SHORT-TIME MEMORY LOAD (THERE SHOULD BE ENOUGH POWER TO DO THE MOST COMPLEX SEARCHES AND TASKS QUICKLY, WITHOUT SLOWING SYSTEM DOWN)
(I) AUTOMATIC/CONTINUOUS SAVE
(J) OTHER

F. INTERFACE REQUIREMENTS

(1) DEPARTMENT OF DEFENSE INTELLIGENCE INFORMATION SYSTEM (DODIIS) TO THE DSNET-3 LEVEL (INCLUDING DIAOLS/COINS/aires/i2)
(2) JOINT INTELLIGENCE TACTICAL COMMAND AND CONTROL SYSTEM (JINTACCS)
(3) MILITARY INTELLIGENCE INTEGRATED DATA SYSTEM/INTEGRATED DATA BASE (MIDDS/IDB)
(4) NAVAL INTELLIGENCE PROCESSING SYSTEM (NIPS)
(5) INTELLIGENCE SUPPORT TO STRIKE/AMPHIBIOUS WARFARE (ISS/AF)

(6) FORCE FUSION SYSTEM (FFS)

(7) SECURE ANALYSTS FILE ENVIRONMENT (SAFE VIA DODIIS)

(8) FOREIGN AFFAIRS INFORMATION SYSTEM (FAIS)

(9) TEAM PORTABLE COMINT SYSTEM (TPCS)

(10) TACTICAL ELECTRONIC RECONNAISSANCE PROCESSING SYSTEM (TERPES)

(11) ALL SOURCE ANALYSIS SYSTEM (ASAS)

(12) ENEMY SIUTATION CORRELATION ELEMENT (ENSC)

(13) MICROFIX

(14) DEFENSE GATEWAY INFORMATION SYSTEM (DGIS)

(15) COMMERCIAL OPEN SOURCE DATA BASES VIA DGIS

(16) MCCDC INTEGRATED DATA AUTOMATION SYSTEM (MIDAS)

(17) OTHER

G. CONVERSION REQUIREMENTS

(1) HARDCOPY FLEET MARINE FORCE DATA BASES

(2) HARDCOPY EXTERNAL DATA BASES

(3) HARDCOPY EMERGENCY EVACUATION PLANS (EEP)

(4) MIIDS/IDB

(5) NAVY FLEET INTELLIGENCE CENTER DATA BASES

(6) ARMY AIRBORNE DATA BASES

(7) SPECIAL OPERATIONS DATA BASES

(8) PSYCHOLOGICAL OPERATIONS/CIVIL AFFAIRS DATA BASES
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<th>Dr. Quincy Wright, Carnegie Endowment for International Peace, Project for a World Intelligence Center, reprinted from Conflict Resolution, Volume 1, Number 1, 1957</th>
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<td>Mr. Mark E. Donnelly, National Security Studies Program, Georgetown University, Open Source Intelligence in the Information Age: Opportunities and Challenges, 28 November 1995</td>
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