

KUWAIT AUTOMATED SUPPORT SYSTEMS

By

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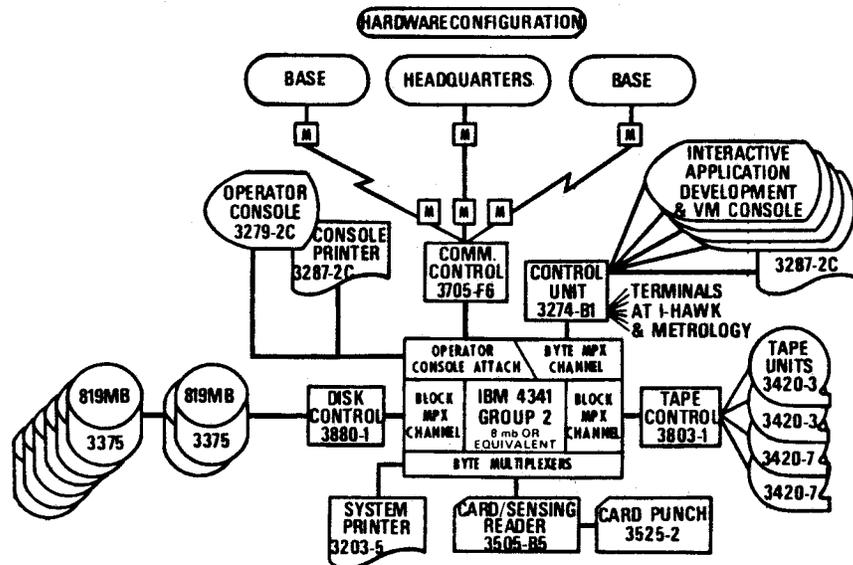
The Navy Fleet Material Support Office (FMSO) provides ADP system development support to friendly foreign governments, and has developed an automated Modular Supply System on behalf of the government of Kuwait. This project has been designated as the Kuwait Automated Support Systems (KASS) Project.

The KASS Project involves the automation of the entire Kuwait Air Force/Air Defense (KAF/AD) supply, financial, maintenance, personnel, administration, and other management systems into a single integrated data base. The KASS Project is a good example of the total system approach which has let FMSO into heretofore uncharted waters. Everything which touched on the effectiveness or efficiency of the system was included in the project. Some of the highlights of the KASS Project are:

Computer System Hardware/Software. The IBM 4341 Model Group II with a sixteen megabyte of main storage provides the processing power. Kuwait was among the first in the world to install it. The processor is supported with four strings of the latest in direct access storage devices, the IBM 3375s, with a total capacity of over thirteen billion bytes. It is an MVS operating system with an IMS DB/DC data base system.

FIGURE 1

KUWAIT AUTOMATED SUPPLY SYSTEM

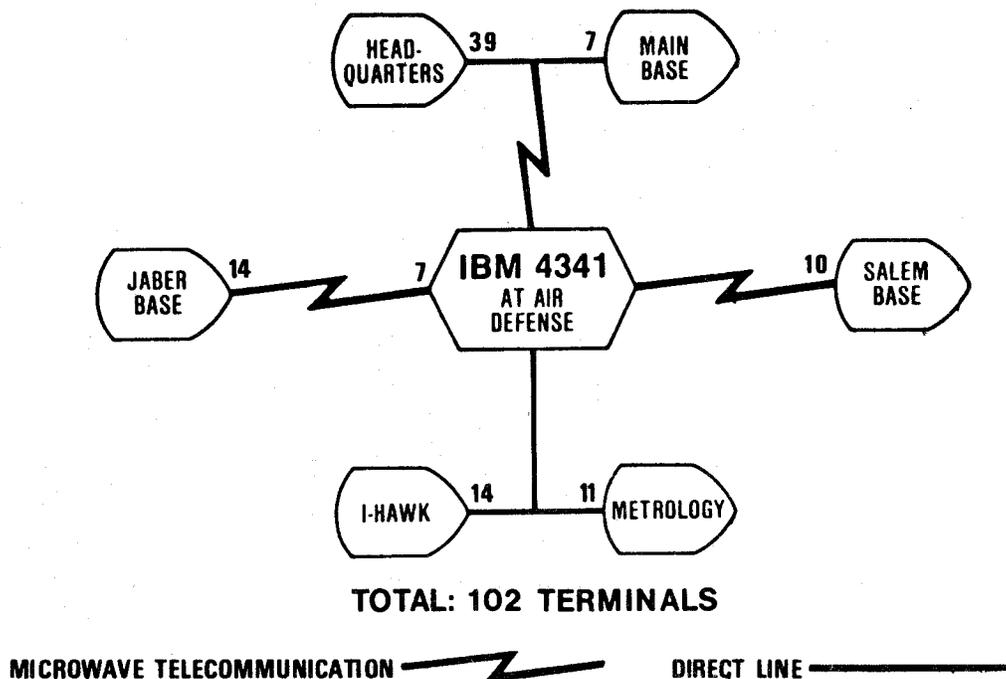


Terminal Network. The Terminal Network, composed of over 100 terminal devices, is a real treat, provided one is not color blind. Users gaze at

multicolored display screens and peruse reports printed in several colors. The intent of the multicolor presentation is not to impress the viewers with the latest in computer technology, but rather to enhance terminal operator productivity by improving the readability of the data on the screens. Program messages or screens to be completed are presented in white; the dates entered by the operator are shown in green; the errors detected by the validation routines are highlighted in red; and the systems messages are reflected in blue. The terminal operator is therefore aware of his errors immediately, can detect data changes rapidly, and most importantly, can discern the source of the information displayed.

Microwave Communications. The on-line teleprocessing network is supported by a microwave communication system installed by Western Electric, the manufacturing arm of AT&T. The microwave system interconnects the KAF/AD bases shown in Figure 2. These microwave links provide the facilities to pass both voice and data traffic. The data traffic to the microwave equipment will originate and terminate at the data modems as indicated in Figure 3, at a speed of 9600 bytes per second. Voice communications capability will be provided by installing a DIMENSION 2000 PBX, with associated push buttons, touch-a-matic telephone sets, at each base. House calling, plug-ins, power boxes, etc., will be installed to interconnect telephone sets. A remote Maintenance, Administrative and Traffic System (RMATS) is installed at Main Base. The RMATS is used to monitor system status and facilities

FIGURE 2
**KUWAIT AUTOMATED SUPPORT SYSTEM
 TELEPROCESSING NETWORK**



maintenance of the DIMENSION 2000 PBXs. The entire closed loop system has been interconnected with the commercial network in Kuwait and the outside

world through the Ministry of Telecommunications Building which is further connected to a Satellite Earth Station.

Interface With AUTODIN. The computer system is connected by satellite communications to the AUTODIN Network via Defense Automatic Addressing System (DAAS) at Gentile Air Force Station in Dayton Ohio. Two Honeywell Systems provide the communications interface around the clock. This interface allows the KAF/AD to send their MILSTRIP requisitions with a 15-minute delay to the International Logistics Control Offices in the U.S. DoD Logistics System. Status is likewise received within 72 hours turn-around time. See Figure 4.

Data Base. There are more than 250,000 line items in the KAF/AD Supply System. These items support various weapon systems from Western Bloc as well as Eastern Bloc countries. The Master Supply Records were duplicated in-country, forwarded to FMSO where the data was edited, then converted using key-to-tape techniques. The skeleton data files were then tested and subsequently shipped to the KAF/AD for on-line updating.

Application Development. An on-line supply management system is being progressively installed during the initial phases. The system features the latest in data processing techniques. Display terminals provide instant queries and requisitioning status to maintenance personnel. The application development is being accomplished by IBM and Martin-Marietta under the project management of FMSO.

Documentation. FMSO (Code 981), assisted by the Martin-Marietta Company in Orlando Florida, is developing various procedure manuals and desk top guides for the functions affected by KASS. The manuals/guides are of superior quality, with flow diagrams, drawings, pictures, etc., to assist the various nationalities working in the KAF/AD.

Interactive Instructional System. To assist in the training of user personnel, each new function introduced will be accompanied by an on-line course developed by IBM. This will allow the formation of new personnel or refresher training with minimal intervention from the experienced personnel.

FIGURE 3

KUWAIT AUTOMATED SUPPORT SYSTEMS
MICROWAVE COMMUNICATIONS

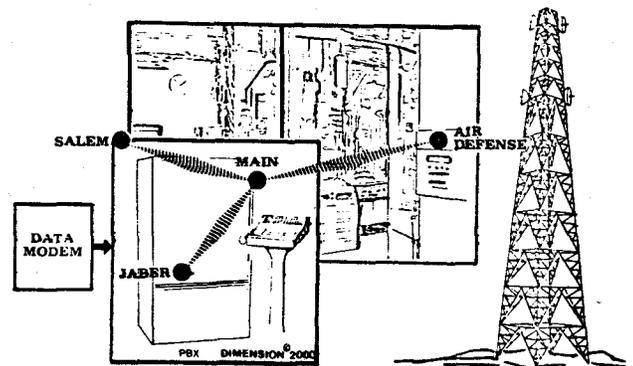
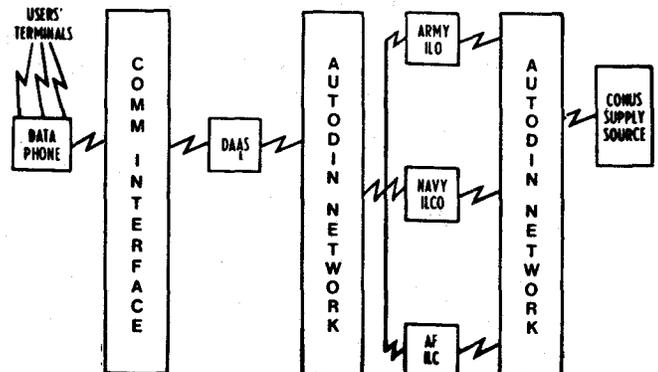


FIGURE 4

KUWAIT AUTOMATED SUPPORT SYSTEMS
INTERFACE WITH AUTODIN



Computer Personnel Training. The Management Information System (MIS) organization at the KAF/AD will be manned by an all Kuwaiti national staff. A cadre of officer, enlisted, and civil service personnel are currently undergoing training at FMSO and at various IBM computer educational centers throughout the United States. Two of the Kuwaiti personnel have already completed their training in system operations and are presently operating the new sophisticated IBM/Honeywell computer system. The Martin-Marietta Company Data Systems Division provides in-country training experience.

Electronic Mail. The IBM 6670 information distribution system is an electronic mail, laser beam printer, copier, and communications system. The 6670 will allow the marriage of the data processing system with the word processing system. The system has been modified by IBM to allow Arabic printing.

Word Processing. A Word Processing System featuring the same terminal devices utilized in data processing will be installed throughout the KAF/AD administrative offices. This system, which will be in Arabic and Latin, will interconnect to the 6670 electronic mail system discussed previously.

Finishing. The complete renovation of a warehouse to be utilized as the Inventory Control Point for the entire KAF/AD is one of the odds and ends tasks being accomplished under the KASS Project. The renovation includes installation of a false ceiling, carpeting, furniture, bathroom construction, electrical work, etc. Also under the KASS project, the Computer Center was completely furnished last September. The interior design and supervision of the various construction/work is contracted to Philips Office Products, a local company in Camp Hill, Pennsylvania.

ABOUT THE AUTHOR

Commander Kamel, is the Command Project Manager for the Kuwait Automated Support Systems in FMSO's International Logistics Support Department. His involvement with international affairs started from a very early stage with a tour in Cairo, Egypt, where he was born and raised. He was reassigned to CONUS after he completed his immigration paper in his late teens. He has a degree in Hotel Administration from the "Ecole Hoteliere" in Morocco, a B.S. Degree cum laude in Business Administration and an MS Degree with distinction in Computer Systems from the Naval Postgraduate School.