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Project No: ANT/87/002/A/01/37

Project Title:

"Assistance to the St. John's Development Corp (Antigua)"

REPORT ON INVESTIGATORY FACT FINDING MISSION - ANTIGUA, W.I.

November 4 - 8, 1988

November 24, 1988

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1.00. Development Objective and Justification

- 1.01 The main development objective of UNIDO's "Assistance to the St. Johns Development Corporation (Antigua)" is the design and implementation of a computerized control system at the new duty-free shopping and tourist center at Heritage Quay.
- 1.02 Justification of the project is support of Antigua's efforts to broaden the base of its Tourism Industry to increase its portion of the cruise ship tourist business. This segment of tourism is extremely attractive (compared to overnight tourist stays which is the bulk of Antigua's tourism) because it places the least strain on island infrastructure. The cruise ship passengers (700 - 1500 per vessel) spend one day ashore and are housed and largely fed aboard ship. Potential tourist expenditures ashore per vessel/per day are some \$ 100,000 U.S. with the impact of creating broad scale employment as the velocity effect moves through the economy.
- 1.03 SDC development activities include construction of a cruise ship pier adjacent to the Heritage Cay shopping complex which is already completed. The shopping complex while open to both locals and tourists allows duty free sales to tourists only, or to local residents departing the island who take their purchases with them.
- 1.04 The introduction of true duty free shopping, with the intention of increasing Antigua's competitiveness as a duty free port of call for cruise ships, is a sensitive matter. With no personal income tax, more than 50% of total government revenues currently come directly from import duties and consumption taxes paid by local residents. The challenge is to introduce duty free shopping without disturbing the existing Government revenue base. This requires strict monitoring by Customs of the legitimacy of duty free sales, without incurring burdensome monitoring expenses for what is essentially a non-revenue source for Customs.
- 1.05 Antigua has no prior experience in computerized point of sale. UNIDO is providing technical assistance in the design, implementation and training for the automated system which the Government of Antigua will purchase.
- 1.06 A comprehensive management information system is needed to insure the operation and continued economic viability of the St. Johns Development operation. The system must include installation of necessary hardware and software, along with system operation manuals and a comprehensive training program for the Development Corporation Staff.

2.00 Activities Carried Out and Outputs Produced.

2.01 Activities

The consultants' three day fact finding mission in Antigua Nov. 4-8, 1988, focused on the goals of:

- a) collection of information on data input/output requirements necessary for technical specification of the computer system and development of a bid specification for computer hardware.
- and
- b) understanding fully the philosophical issues to be satisfied in the design of the operational structure of the system.

While the technical problem is clear, philosophically, the problem requires a plan that addresses the divergent interests of both Customs and the Merchants, while providing the necessary SDC management information and Government statistical information at minimal ongoing expense to the Government.

On site the consultants held discussions with SDC senior management with respect to their management requirements and priorities as well as the Accountant for SDC. The consultants met with the president of the Heritage Quay Merchants' Association and reviewed in detail with individual merchants the forms and manual reporting procedures required for customs compliance. The consultants used a questionnaire for merchants to gather transactions data volume estimates.

In addition the consultants reviewed the SDC feasibility study, the enabling legislation, and the OECS First Phase Action Study.

2.02 Outputs produced for fulfilling the immediate objectives of the preliminary investigation project include:

- a) identification of the required information streams, and design of the general system specification for the size and type of computer system required;
- b) design of the operational structure and legal vehicle for implementation of the computerized system.

Preliminary specifications and design of an on-line computer system to handle the aforementioned information requirements is technically a straightforward task. This portion of the work has been facilitated adequately by the cooperation of all persons interviewed on site (see Annex, 6.1).

Specific information on the volume of input and output requirements of the computer system was essential for the purpose

of refining a bid specification for hardware and software and determining the most cost-effective structure for a computerized control system for SDC.

The consultants, on their first mission to Antigua, identified the information needs of the various organizations, analyzed the data flow in its present (paper) form, and interviewed personnel to determine their willingness to embrace the concept of automation.

The general perception of the problem now is that the The consultants' recommended solution, when implemented, will satisfy the stated requirements.

3.0. Achievement of Immediate Objectives

- 3.1 The mission was begun very late, in the context of the development cycle, in that the consultants' first arrival on site occurred on the Official opening day of the Heritage Quay Center. Some shops were already open, and more were opening on a daily basis.
- 3.2 Despite impatience for immediate results, all parties when offered the option of a near term temporary solution for handling the peak season at hand, opted to wait for implementation of the optimum permanent system.
- 3.3 Consultants were able to identify key inputs and output information streams for development of the system. The system must satisfy the information needs of four different organizations:
 - a) The Comptroller of Customs must be able to monitor the flow of duty free and duty paid goods sold in the shops, collect revenues when appropriate, and reconcile merchants reports with incoming shipment manifests.
 - b) The Merchants' Association needs to have a system that minimizes the time and expense involved in the reporting function, as well as point-of-sale and inventory control automation. A payroll system is also desired for clerical and management personnel.
 - c) The St. Johns Development Corporation, and its joint venture property management company, NP Management, needs to monitor collection of rents, do accounts, handle payroll, and perform cash flow analysis.
 - d) Tourism statistics are required for computing

National Economic Accounts. The Ministry of Tourism has a need to develop detailed statistics on tourist activity, including arrivals, length of stay, and approximate dollar amount spent per capita.

- 3.4 The consultants developed the function area profile for the merchants, however, there was insufficient time available to develop profiles for Customs.
- 3.5 A function area profile for Customs will require a minimum of one week's study of the manual (paper) system presently used by the Customs Service. This week of study should occur during the beginning of the official tourist season, when transaction volumes would be highest.

4.00 Findings and Conclusions

4.01 Existing manual system will be unmanageable with anticipated volumes of business.

The existing manual system now used is impractical for the potential profile of Heritage Quay business. When the cruise ship dock is completed the potential exists for up to 1,500 tourists to arrive at the shopping center within a few minutes time, literally choking the shops on their own success as they manually attempt to process the required Customs paperwork for each individual sale.

4.02 Merchants fully support compliance with Customs reporting but want an automated system.

All merchants interviewed expressed respect for Custom's need to monitor duty free vs. non duty free sales, acknowledging the importance of duties and consumption taxes to the overall level of Government revenues. (Most also identified a significant level of dutiable sales to locals during their initial days of business.) However they are anxious for relief from the present time consuming manual reporting system.

4.03 Individual merchants needs for type of system interface vary widely.

Heritage Quay shops represent a wide variety of types of merchandise, price ranges, and inventory levels. The financial resources, merchandising experience, likelihood of longevity of the various shops cover a wide span, from branches of established Rome Boutiques to first time local entrepreneurs. Some of the shops have computers of their own. The System requirements must address a variety of differing needs for interfacing with the individual shops.

- 4.04 A low cost system interface option must be made available to accommodate the smaller shops.

It is important to offer a very low cost alternative to the smaller shops for terminal interfaces. Pricing of Data Center services will of necessity be based on the number of transactions processed, and will be more costly for a shop with inexpensive merchandise.

- 4.04 Additional study is required to develop a function profile for Customs.

While the Consultants were able to define input flows from the Customs forms, at least an additional week of on site study of Customs internal paperwork operations is required to develop a function profile for Customs.

- 4.05 The Computer System should not be physically located in Customs.

The consultants, after reviewing all system requirements concluded that the computer system should not be located in Customs, as alternative system proposals submitted to SDC suggested. Customs is not yet computerized and has no immediate plans to be. Even if the computer were donated to customs the cost and responsibility of operation would be at Government's ongoing expense. Location of the computer elsewhere leaves open the options for a broader range of computer services for merchants.

5.0. Recommendations

5.01 Creation of a Joint Venture Computer Service Bureau

The consultants propose the computerized system be handled by creation of a joint venture 50% owned by St. John's Development Corporation and 50% by the private sector Heritage Quay Merchants's Association. The joint venture will operate as a profit center, conducting the business of a computer data processing center which will sell its services to the merchants of Heritage Quay.

Both the Merchants and St. Johns Development Director voiced positive reaction to the consultants proposed solution - a system designed to be permanent, economically viable with the ability to attract the necessary personnel to insure quality of operations, and ultimately self-supporting without ongoing government expense.

The joint-venture data processing center, is to be initially funded by St. Johns development, with technical assistance from UNIDO, and subsequently to be supported from revenues

of leasing terminals and data processing services to the merchants. This means that Customs, and the Ministry of Tourism, will be provided with the information they need at minimal cost to the government.

5.02 In support of establishment of the joint-venture data center, the following needs are identified:

- a) Additional market research to determine merchants/customers need for services beyond the customs reporting function, for which they will pay an ongoing fee.
- b) Determination of specific tourism statistics required, and incorporation of those needs into the overall system specifications.
- c) Preparation of flow charts on all four required information streams, and creation of software program specifications.
- d) Collection of vendor quotations on equipment and software.
- e) Creation of a business plan for the data center operation in conjunction with the National counterpart, to insure adequate capitalization, continued economic viability, and determine pricing of services to customers (the merchants).
- f) Specification of necessary inputs for set up of the data processing center, installation, and training.
- g) Writing of job descriptions for key personnel.
- h) Installation of equipment and personnel, and supervision of start up operation of the data processing center.
- i) Monitoring the progress of data center operations for the first year.

6.0. Annexes

6.01 General System Specification for Computer System

6.02 List of persons met.

6.03 Sample customs form.

6.04 Sample merchant survey form.

6.05 Names of Consultants on mission

6.06 Other materials - where deposited:

a) Peasibility Study. Office of Winston James. St. Johns Development.

b) Enabling legislation: Office of Attorney General

c) Tourism statistics source documents: Offices of Customs and Immigration.

d) OECS Study - "The REvitalization of Downtown Saint John's Antigua and Barbuda - First Phase Action Plan"

6.01 General System Specification for Computer System for St. Johns' Development Corp. - Antigua

I. St. Johns Development Data Center

A. Computer System

The computer system installed should consist of fully redundant components, so as to minimize the likelihood of disruptions in service. The configuration would be in the category of mini-computer, capable of networking to local terminals, personal computers, cash registers, credit card and bar code readers, and remote communicating devices or terminals.

1. The central computer unit should support a minimum of sixty (60) terminals, printers, or communications lines.
2. The speed of the device should be such that it can a transaction rate of one transaction every ten seconds, per terminal, when operated on an on line basis, and one transaction per second, when operated in a batch mode.
3. The disk storage should accommodate initially 50,000 inventory items, 1000 vendors (suppliers), and be capable of registering a combination of sales, or transactions up to 5,000 per day, each with a 132 column record, plus necessary overhead for index keys, programs, and operating system.
4. Credit card verification would be a desirable feature, handled by entering the card number at a merchant terminal and a pass through to a communications line to the authorization service.
5. Printing would be handled by two line printers operating at 300 lines per minute (for redundancy), and two dot matrix printers for program listings, checks, and short reports, operating at a minimum of 200 characters per second.
6. U.P.S. power requirements should be set out in detail, depending on the consumption of the equipment.
7. The estimated cost of this (to be paid by the joint-venture, is US \$ 150,000, with additional \$ 25,000 reserve for shipping, site preparation, installation, and start-up costs.

ANNEX

6.02 List of persons met.

- a) Winston James, Director - St. Johns Development Corp.
- b) Dr. Vincent Richards - Accountant, St. Johns Dev. Corp.
- b) Paul Farara - President, Heritage Quay Merchants Assoc.
- c) Norman Wexelmann - President, N.P. Development Corp.
- d) Sue Ross - Manager - Colombian Emeralds
- e) Walter Fischer - President, Little Switzerland
- f) Brigitte Herrington - Manager, Little Switzerland
- g) Brenda Abbott - Manager, Benetton
- h) Jill Fuller - Owner, Leather Collection
- i) Clavelle Friday - Co-owner, Wadadli's
- j) Isha Ryan - Manager, La Perfumerie
- k) Elroy James - Manager, Best Price Display
- l) Janice Thomas - Manager, Island Arts
- m) Pat Evanson - Manager, Shipwreck Shop

ANNEX**6.05 List of Consultants on Mission**

- a) Peter de Blanc - President, Octagon Consultants
Electronics Engineer
Computer Technical Hardware and
Software Expert
Telecommunications Specialist
- b) Dotty Sparks - Senior Consultant, Octagon Consultants
Systems and Financial Analyst
Economist
- c) Jerilyn Caesar - Consultant, Octagon Consultants
Specialist, Retail Merchandising
Management
Training Specialist

STORE NAME _____

OWNER'S NAME _____

MAILING ADDRESS & TELEPHONE _____

CONTACT PERSON & TELEPHONE _____

1. DO YOU HAVE OTHER STORES IN ANTIGUA? [] YES [] NO

2. IN THE CARIBBEAN? [] YES [] NO IF SO, WHERE? _____

3. DO YOU PRESENTLY USE A COMPUTER IN YOUR BUSINESS? [] YES [] NO

IF SO, TYPE OF COMPUTER? _____
SOFTWARE PROGRAMS: _____

4. HOW MANY DIFFERENT ITEMS OF INVENTORY ARE IN THIS STORE? _____
IN OTHER STORES? _____

HOW MANY DIFFERENT CATEGORIES OF CUSTOMS DUTIES ARE REPRESENTED
WITHIN YOUR INVENTORY? _____

5. DO YOU HAVE A CASH REGISTER? [] YES [] NO

6. WHAT TYPE OF CASH REGISTER DO YOU USE? _____

7. DO YOU USE SALES SLIPS? [] YES [] NO

8. AT PEAK SEASON, WHAT DO YOU ANTICIPATE TO BE:
THE AVERAGE NUMBER OF DAILY SALES TRANSACTIONS _____
THE MAXIMUM NUMBER OF SALES TRANSACTIONS FOR A SINGLE DAY _____
THE AVERAGE NUMBER OF ITEMS PURCHASED PER CUSTOMER _____

9. HOW MANY SUPPLIERS DO YOU HAVE? _____

10. DO YOU HAVE A CUSTOMS BROKER? [] YES [] NO

11. PLEASE LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF YOUR BROKER.

12. WHAT PROVISIONS DO YOU MAKE FOR RETURNED GOODS? _____

13. DO YOU ACCEPT CREDIT CARDS? [] YES [] NO

[] AMERICAN EXPRESS [] MASTER CHARGE [] VISA
[] CARTE BLANCHE [] DISCOVERY [] DINER'S CLUB
[] TRAVELER'S CHECKS [] PERSONAL CHECKS [] FOREIGN CURRENCY

14. HOW DO YOU AUTHORIZE CREDIT CARD PURCHASES? _____

15. HOW LONG DOES IT TAKE? _____

- 16. DO YOU DELIVER TO THE SHIP? YES NO
- DO YOU DELIVER THE THE AIRPORT? YES NO
- DO YOU DELIVER TO THE POST OFFICE? YES NO

17. INTERVIEW NOTES:

PLEASE ATTACH COPIES OF ALL FORMS WHICH YOU USE IN YOUR BUSINESS WITH RESPECT TO INVENTORY CONTROL, BILLS OF LADING, CUSTOMS FORMS, INVENTORY CHANGE ORDERS, PHYSICAL INVENTORY SHEETS, PICK SLIPS, SALES SLIPS AND ANY OTHER FORMS WHICH ARE USED IN THE DAILY ROUTINE OF YOUR BUSINESS.

INTERNATIONAL ENTRY-EXHIBIT/AIRCRAFT/CUSTOMS TRANSIT AREA/GOODS LIABLE TO DUTY AND CONSUMPTION TAX

AD VALOREM DUTY

SPECIFIC DUTY

CARIFTA-CA

Overseas Preference-000

Date 19--

Date 19--

Revision Number

Date of Import Day Month Year

Country of Registry

Port or Place where arrived

Date of Importation	
Day	Month Year

Total Amount Received \$

Cashier

Invoices Examined by

Date

Tariff Item No.	Description and Quantity of Goods in accordance with Customs tariff and Trade Classification List	Quantity in Figures	Unit of Quantity	Unit No.	Country of Origin		Value C.I.F.	Rate	Duty Amt	Consumption Tax Value C.I.F. & Duty	Rate	Amount	Sum Duty Amt
					Origin	No. of Country							
TOTAL VALUE													
TOTAL DUTY/TAX													

Payable (in Words)

Description, value and other particulars above stated in text and complete.

Signature of Importer or His Authorized Agent (1)

For Comptroller of Customs and Excise

(1) The signature of the Importer or His Authorized Agent must be attested by the Comptroller or a Witness whose signature is known to, and is a