

ARAB REPUBLIC OF EGYPT

SUEZ CANAL AUTHORITY

TELEPHONE: 064-3390000-3390030

TELEGRAM: SUCANALISMAILIA A.R.E.

PROCUREMENT DEPARTMENT

مديرية حاسبات

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PURCHASE ORDER NO 26-6701

DATE 3/4/2008

FOR SUPPLYING :NEW RADAR STATION AND DIGITAL
MICROWAVE LINK

MESSRS: VISSIM A/S,
SOLLISTRANDSVEIEN 12, N-3187 HORTEN, NORWAY,
FAX: +47330 71899

DEAR SIRs,
REFERENCE YOUR QUOTATION NO. Q7042 DATED 12.8.2007 AND YOUR AGENT
LETTER DATED 20.7.2007 , 24.12.2007 , 26.2.2008, 26.2.2008 and 1.4.2008
WE WOULD LIKE TO INFORM YOU THAT THE ITEMS MENTIONED ON THE
ATTACHED LISTS ARE ACCEPTED ACCORDING TO THE FOLLOWING
CONDITIONS:

1. TOTAL VALUE :

THE TOTAL VALUE AGREED UPON IS EURO 658986.73 (ONLY SIX HUNDRED
FIFTY EIGHT THOUSAND , NINE HUNDRED EIGHTY SIX AND 73/100 EURO)
FOR THE SUPPLY AND DELIVERY CIF PORT SAID SEAPORT (OLD PORT)
INCLUDING PACKING FOR EXPORT OF ALL ITEMS SHOWN ON THE ATTACHED
LISTS.

THIS PRICE IS FIRM AND NON REVISABLE AND IN NO CIRCUMSTANCE FOR ANY
REASON WHATSOEVER SHALL ANY CLAIM BY THE SUPPLIERS FOR ANY
INCREASE OF THE PRICE BE TAKEN INTO CONSIDERATION.

2. METHOD & TERMS OF PAYMENT :

PAYMENT WILL BE AS FOLLOWS:

- A) (50%) FROM THE TOTAL VALUE (I.E. EURO 329493.33) WILL BE PAID BY
A CONFIRMED, DIVISIBLE AND IRREVOCABLE L/C VALID FOR 12 MONTHS.
THIS L/C WILL OPEN IN YOUR FAVOUR WITH DNB NOR BANK ASA, POST
BOX 34, 3191 HORTEN , NORWAY IBAN NO. 55 5081 0773 305, SWIFT :
DNBA NOKKXXX, ACCOUNT NO. 50810773305
PAYMENT FROM THIS L/C WILL BE IN TWO INSTALMENTS:

FIRST INSTALMENT : AMOUNTING EURO 258777.63 AGAINST
PRESENTATION TO THE BANK THE FOLLOWING DOCUMENTS.

1. ORIGINAL COMMERCIAL SIGNED INVOICES IN FOUR (4) COPIES
2. CERTIFICATE OF ITALIAN, DUTCH (OR E.C.) AND JAPANESE ORIGIN
COUNTERSIGNED BY THE CHAMBER OF COMMERCE IN THE COUNTRIES
INVOLVED.

السكرتير
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3. TWO ORIGINALS OF " CLEAN ON BOARD " BILLS OF LADING AND TWO COPIES.

- FREIGHT PREPAID

4. FACTORY TEST OR CONFORMITY CERTIFICATE.

5. INSPECTION CERTIFICATE ISSUED BY S.C.A. DELEGATES.

SECOND INSTALMENT : AMOUNTING EURO 70715. 0 AFTER FINISHED OF THE TOWER BUILDING AND PRESENTATION THE FOLLOWING DOCUMENTS:

1. THE COMMERCIAL SIGNED INVOICES IN FOUR (4) COPIES

2- ANOTIFICATION FROM S.C.A THAT THE BUILDING OF THE TOWER WAS FINISHED .

N.B: THE COSTS OF OPENING AND CONFIRMATION OF THE L/C OUTSIDE A.R.E. WILL BE BORNE BY THE SUPPLIER AND INSIDE A.R.E. WILL BE BORNE BY THE PURCHASER.

B- (50%) FROM THE TOTAL VALUE (I.E. EURO 329493.40) WILL BE PAID BY BANK TRANSFER IN TWO INSTALMENTS AS FOLLOWS:

FIRST INSTALMENT : AMOUNTING EURO 164746.70 WILL BE PAID AFTER SIGNED (SAT) CERTIFICATION AND PRESENTATION THE FOLLOWING DOCUMENTS:

1. THE COMMERCIAL SIGNED INVOICES IN FOUR (4) COPIES

2- SITE ACCEPTANCE TEST (SAT) CERTIFICATE SIGNED BY S.C.A REPRESENTATIVE AND THE SUPPLIER'S DELEGATES.

SECOND INSTALMENT : AMOUNTING EURO 164746.70 WILL BE PAID AFTER SUCCESSFUL RELIABILITY PERFORMANCE TESTS DURING SIXTY DAYS AS SHOWN ON THE ARTICLE NO.(6) , AND PRESENTATION THE FOLLOWING DOCUMENTS:

1. THE COMMERCIAL SIGNED INVOICES IN FOUR (4) COPIES

2- ANOTIFICATION FROM S.C.A THAT THE SUCCESSFULLY RELIABILITY PERFORMANCE TEST.

N.B: THE COSTS OF TRANSFERING THE TOTAL VALUE OUT SIDE A.R.E. WILL BE BORNE BY THE SUPPLIER AND INSIDE A.R.E. WILL BE BORNE BY THE PURCHASER.

3. TIME OF DELIVERY :

CIF WITHIN 12 MONTHS FROM THE DATE OF THE L/C COMING INTO FORCE.

IN CASE THE DELIVERY OF THE ORDERED GOODS IS DELAYED MORE THAN THE AGREED DELIVERY PERIOD SCA HAS THE RIGHT TO INFLICT A PENALTY OF 1%(ONE PERCENT) PER WEEK OR FRACTION OF WEEK WITH A MAX OF 3% (THREE PERCENT) OF THE TOTAL PRICE OF THIS ORDER.

4. MARKING:

EACH CASE OF CONSIGNMENT SHOULD BEAR THE FOLLOWING SHIPPING MARKS ON TWO SIDES:

SUEZ CANAL AUTHORITY
GENERAL STORES
PORT SAID, A.R.E.

0 NO OF CASES

CASE NO

ORDER NO 26-670/ 1383

DATED 3/14/2008

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N.B: * IN CASE OF WOODEN PACKING, WOODEN MATERIALS TO BE IN COMPLIANCE WITH THE REQUIREMENTS OF ISPM NO. 15 AND PERMANENTLY MARKED IN A VISIBLE LOCATION ON TWO OPPOSITE SIDES.

5. SHIPMENT, TRANSPORTATION & INSURANCE :

ON BASIS OF CIF DELIVERY,
SHIPMENT, TRANSPORTATION & INSURANCE WILL BE CARRIED OUT BY YOUR GOODS ELVES / YOUR FORWARDING AGENT, WHICH THE COSTS ARE PREPAID.
PARTIAL SHIPMENT PERMITTED

6. RELIABILITY PERIOD FOR TWO MONTHS

AFTER SITE ACCEPTANCE TEST (SAT) , AND BEFORE STARTING THE GUARANTEE PERIOD , THE RELIABLE PERFORMANCE OF THE COMPLETE SYSTEM SHALL BE PROVED BY WAY OF A PERFORMANCE TEST FOR A PERIOD OF SIXTY DAYS.

THE GUARANTEE PERIOD WILL START AFTER SUCCESSFUL RELIABILITY PERFORMANCE TESTS DURING SIXTY DAYS.

IF ANY DEFECT APPEARS IN THE PERFORMANCE, THE TEST PERIOD SHALL BE START AGAIN FOR SIXTY DAYS.

THE SUPPLIER SHALL BE RESPONSIBLE TO MAKE THE NECESSARY MODIFICATION OR CHANGES OF EQUIPMENT TO FULFILL THE CONTRACT FUNCTION.

7. INSPECTION AND TRAINING:

ACCORDING TO SHOWN ON THE ATTACH SPECS.

8. INSTALLATION SUPERVISION:

INSTALLATION WILL BE DONE BY SCA STAFF UNDER COMPLETE SUPERVISION AND RESPONSIBILITY OF THE SUPPLIER AS SHOWN ON THE ATTACHED SPECS.

9. GENERAL CONDITIONS

1. THE SUPPLIER MUST SEND THE THIRD ORIGINAL OF BILL OF LADING, COPY OF DETAILED INVOICES AND PACKING LISTS BY AIRMAIL UPON SHIPMENT TO S.C.A. GENERAL STORES PORT SAID A.R.E. FOR THE PURPOSE OF CUSTOMS CLEARING.
2. THE SUPPLIER GUARANTEE THAT THE ARTICLES ORDERED ARE FABRICATED FROM THE BEST QUALITY OF MATERIALS AND WITH EXCELLENT COMPLETION.

-ALL MATERIALS FOUND DEFECTIVE SHOULD BE REPLACED BY THE SUPPLIERS FREE OF CHARGE AT THE SUPPLIERS EXPENSES.
3. L/C WILL NOT BE OPENED UNTIL THE SUPPLIERS SUBMIT 10% ACCEPTABLE L/G AS GUARANTEE DEPOSIT/PERFORMANCE BOND VALID UNTIL THE END OF GUARANTEE PERIOD AS SHOWN ON THE ATTACHED FORM (THIS L/G TO BE SUBMITTED NOT LATER THAN 3 WEEKS FROM THE DATE OF THIS ORDER).
4. THIS ORDER IS SUBJECT TO THE GENERAL CONDITIONS FOR ADJUDICATIONS OF S.C.A PROCUREMENT DEPT.

THANKING YOU FOR YOUR CO-OPERATION

WE REMAIN DEAR SIRs.

ENG. MOHAMED KAMAL EL KERSH

DIRECTOR OF PROCUREMENT DEPARTMENT

CIFE291/EMAD/FATEN

GUARANTEE PERIOD

- A- THE SUPPLIERS GUARANTEE THE GOOD CONDITION AND PROPER FUNCTION OF THE UNITS AND ITS ACCESSORIES SUBJECT OF THE ORDER FOR A PERIOD OF (24) MONTHS START AFTER SUCCESSFUL RELIABILITY PERFORMANCE TESTS DURING TWO MONTHS.
- B- IF DURING THE GUARANTEE PERIOD ANY PART OR UNIT WHICH MAY BE DAMAGED DETERIORATED OR FOUND DEFECTIVE AS A CONSEQUENCE OF UNSUITABLE MATERIAL, FAULTY DESIGN, BAD MANUFACTURE OR IN ADEQUATE WORKMANSHIP, WILL BE PROPERLY REPAIRED OR REPLACED BY THE SUPPLIER FREE OF CHARGE WITHIN FOURTEEN DAYS OF ITS OCCURANCE.
- C- THE WORK OF CORRECTION AND/OR REPLACEMENT OR REPAIRING OF THE DEFECTIVE PART OR PART COVERED BY THE GUARANTEE MAY BE EXECUTED BY THE PURCHASER AT THE EXPENSES OF THE SUPPLIER UPON THE SUPPLIERS WRITTEN REQUEST.

THE PURCHASERS WILL RECOVER THEIR CHARGES FROM THE SUPPLIER, THESE CHARGES WILL BE DEDUCTED FROM THE GUARANTEE DEPOSIT IF THE SUPPLIER FAIL TO PAY SUCH CHARGES WITHIN THREE (3) WEEKS FROM NOTIFICATION.

THE SUPPLIER WILL BE RESPONSIBLE TO COVER THE AMOUNT DEDUCTED FROM THE GUARANTEE DEPOSIT WITHOUT ANY DELAY.

1 : Description :-

This order for supplying , installation supervision ,commissioning and start up of the New Port Fouad - Port Said Radar Station and Digital Microwave Link for the Suez Canal Authority Existing VTMS.

This order includes all the specifications, detailed scope of supply, obligations, prices ,conditions.....etc according to and inconformity with the following references:-

1. July 2006 Q6025 / 04-Jul-2006 Version 1.
Technical Proposal
2. Aug 2006 Q6025 / 15-Aug-2006 Version 2.
Response to request for clarifications
3. Dec 2006 Q6025 / 12-Dec-2006 Version 3.
4. Feb 2007 Q6025 / Feb-2007 Version 1 Radar performance
calculations clarifications
5. June 2007 Q6025 / 10-June-2007 Version 4.
6. Aug 2007 Q7042 / 12-Aug-2007 Version 1.
Commercial proposal alt. B CHL antenna and local tower.
7. Sep. 2007 Q7042 / Sep-2007 Version 1.
8. Feb. 2008 detailed scope of supply, price, terms and conditions
9. Suez Canal Authority letter of intend dated 29-12-2007

And all mentioned notifications initiated by both order parties are considered as an integral part of the contract.

2 : General Requirement:-

1. All new radar information must be as the current composite radar video signals specs at Portsaid center (attach. no. 1.1-1.2) to establish direct interface to the existing Norcontrol VOC 5000 without the need to carryout a software or hardware modification in the existing system equipment .
2. The new radar range coverage of Portsaid must be 32 km at least for detection of small vessels started with 100 m²(RCS), 6m height using medium pulse (MP) of 200 ns.
3. VisSim must provide control signals , monitor signals and alarms between Port Said center and Port Fouad radar site .
4. All equipments (Except the tower and its accessories) will be manufactured by West Europe, USA or Japanese companies according to and inconformity with the mentioned references.
5. VisSim will supply all necessary equipment and software for completion of the project according to contract specification.
6. Brand and model names to be checked and accepted by SCA inspectors during inspection to comply with the contract scope of supply.
7. The microwave link must be (1+1) hot/standby (frequencies 37383.5 and 38643.5 MHZ) completely in power units, control units, transmitter and receiver with back up batteries to support the system for eight hrs in case of failure.

3 : Manufacturing Of The Equipment:-

- VisSim guarantees that the materials used in the manufacturing of the equipment subject of this order shall be of best quality and free from any defects and is designed and constructed in accordance with up to date practice and technology.
- VisSim shall be entirely responsible for the design of all equipment and system provided under this order, any modifications or changes in the equipment and materials necessary to achieve the needed functions according to the specifications shall be adopted by the contractor at no additional cost.
- All equipment provided under this order shall be subjected to the approval of SCA as soon as the project has been erected , fully operational and has passed the final performance tests for two months, SCA shall issue a protocol of acceptance in which SCA shall certify the starting date of the guarantee period.

4 : SCA Obligations :-

- 1- All delivered equipment and tower will be SCA responsibility to cover any risks during the period after CIF delivery until end of reliability period .
- 2- To execute all necessary installations including qualified personnel, tools, lifting facilities and all other tools and services necessary for the installation under complete supervision and responsibility of VisSim qualified supervisors
- 3- Supplying water, electricity free of charge for tower installation and concrete foundation .
- 4- To get all necessary permissions for the installation of the project and for workers of (SCA, VisSim) from the concerning Authority for the project execution.
- 5- Arrange of tower site preparation after making site survey by VisSim delegate and making soil test investigation report. If selected site is different from normal soil, (1kg/cm^3) with low underground water level then SCA will be responsible for any site dewatering , soil replacement, deep foundation or piles,..... etc for concrete foundation preparing up to a normal soil and for the mobility of the equipment.
- 6- carry out the air tickets for SCA Inspectors and trainees (Cairo-Oslo-Cairo) and also the air tickets for three VisSim staff (Oslo-Cairo-Oslo) for Installation supervision , Commissioning and Start-up as well as air tickets for two VisSim personnel attending three times of project meetings, total of Qty/9 air tickets for VisSim personnel (Oslo-Cairo-Oslo) .

- 7- carry out the full accommodation at Port Said in 1st class hotel and internal transportation for all VisSim staff during their stay in Egypt.
- 8- Arrange equipment installation at Port Said Control Centre site with suitable lighting, electricity, working tables, chairs, etc. and installing all microwave equipment under VisSim -NEC supervision.
- 9- Payment of all taxes in Egypt whatsoever to whom

5 : VisSim Obligations :-

- 1- Delivery (CIF Port Said) of all equipment as per detailed order scope of supply .
- 2- The 70m tower complete with equipment container (shelter) supplied by Al Babbain Le Blanc (local market supply) including supply, installation, foundation and erection under the full responsibility of VisSim . All radar equipment will be transported, lifted up, installed and connected by SCA personnel under VisSim representatives' supervision.
- 3- Arrange for the training which will be carried out in VisSim premises and also for the inspection of the equipment At factory premises, Cost of full accommodation and internal transportation for four trainees for 30 days and for three Inspectors for two weeks. Air tickets will be on SCA account.
- 4- Supervision of the project installation, commissioning and start up (under VisSim full responsibility) by three VisSim qualified Supervisors, Full accommodation in 1st class hotel at Port Said and air ticket (Oslo-Cairo-Oslo) will be on SCA account.
- 5- The estimated time for Supervision of installation, commissioning and start up (item 4 above) is four weeks. Any extension of this period will be charged at a rate of 1,500 Euro per man per day if the delay is caused by SCA.
- 6- The listed equipment in the scope of supply tables is not limited i.e. VisSim should deliver all necessary equipment needed to fulfill the order specs function .
- 7- VisSim is responsible for the radar tower location (attach. No 2) surveyed by VisSim delegate during his visit to Port Said to fulfill the order function.

6 : Guarantee Period:-

- All the system equipment and software delivered by the VisSim are warranted to work in a good condition and function according to the order specifications for a period of 24 months starting from successful end of the reliability test for two months.
- VisSim undertakes at its own expenses during the period of guarantee to repair any defects as a result of defective materials or software problems and to repair or change or modify and return as soon as possible all materials that in consequence of the said causes become defective to the Authority on a CIF Cairo airport.
- Suez Canal Authority will inform the contractor in writing of the defect material.
- VisSim shall be responsible to remedy the defect within maximum seven days from the above said request in default, Suez Canal Authority may carry out the necessary replacement on the VisSim account if the contractor fails to fulfill his obligations after ten days from written request.

7 : Packing List Notification :-

VisSim has to submit to Suez Canal Authority packing list of all equipment for the whole project, one month prior of each shipment.

8 : Maintenance And Spare Parts:-

- The spare parts itemized price list (attach. no 3) shall be held fixed for the guarantee period .
- VisSim shall be responsible for the availability of spares at site during installation and commissioning.
- All principal items of equipment down to the level of printed circuit boards shall be clearly identified with an assembly number, and serial number. On completion of tests at factory, VisSim shall provide the SCA with a record of which assemblies are installed in various equipment locations, such records shall be considered as a part of the " as built " record drawing and will be used as base data for maintenance logs.
- Beside the facilities of BITE offered in the technical offer, test points will be available to allow ready checking of essential voltages and waveforms as an aid to Maintenance as much as possible.
- VisSim shall stick with the reliability figures stated in the technical offer.

9 : Layout, Drawings And Test Procedures :-

One month at least before the starting date of each of the following :-

- VisSim will supply equipment layout needed for installation.
- VisSim will supply specified test procedures and proposals for factory, on site testing and training course details.
- All necessary installation drawings and instructions shall be submitted by the contractor, these drawings and instructions should show the required sequence of installation to ensure correct installation and functioning.
- SCA will approve / comment the above within two weeks from its delivery.
- The new 70 m tower and equipment container design and drawings must be submitted to SCA as data base reference under complete responsibility of VisSim.

10 : The Training :-

VisSim will arrange at its premises in Norway training course for SCA four engineers for a period of 30 days on the following subjects:-

- System theory of operation and maintenance down to the circuit board level.
- System alignment, adjustment, clarification procedures, performance check, different modes of operation, preventive maintenance, troubleshooting, fault isolation and repair.

11 : Factory Test And Inspection (FAT):-

- The SCA will delegate three inspectors for a period of two weeks to carry out the inspection of all equipment manufactured under this order before shipment.
- The approval of the Authority's inspectors on the inspection certificate will not affect the responsibility of VisSim to realize the specs. Functions which is the subject of this order.

12 : Documentation :-

- A Technical manuals (Hard copy) including installation, operation, and maintenance up to component level.
- Documents (Hard copy) shall include a description of each item in the project and services provided and alarms.

13 : Detailed Scope Of Supply :-

ITEM NO.	DESCRIPTION	BRAND	MODEL	QTY	U.Price
PORT FOUAD SENSOR SITE					
1	Radar Transceiver consisting of:				
1.1	25kW Transceiver. Dual transceiver incl. 2 transceivers and waveguide switch.	GEM	RT02-25/H/D	1 Set	65 410.00
1.2	Radar Antenna X-band, 21' Antenna System horizontal polarization w/gearbox (Turning unit)	CHL	SNH37A/910 0-9500 /38 X-band and ST2 turning unit with the two Encoders operating as per attached attach. no. 4	1 Set	225 570.00
	Preparation for pressurization.	CHL	NA	1 Kit	6164.00
	Frequency converter with softstarter.	CHL	NA	1 Set	5568.00
	Anti-vibration ring.	CHL	NA	1 Set	4431.00
	Oil level sensor.	CHL	NA	1 Set	1298.00
	Packing	CHL	NA	1 Set	3105.00
1.3	Antenna Turning Unit	CHL	Incl. in 1.2 Radar Antenna	1 Set	-
1.4	Waveguide	Andrew	EW90	30m	115.30/m
1.5	Waveguide Switch	GEM	Incl. in 1.1 Transceiver RT02-25/H/D	1 Set	-
1.6	Installation Material. Cables, clamps, fittings etc.	CHL	NA	1 Set	21981.00
1.7	Safety Switch	GEM	SSA-12000	1 Set	1016.00
1.8	Duplexer	GEM	Incl. in 1.1 Transceiver RT02-25/H/D	1 Set	-
2	Waveguide Air Dryer (equipment rack mounted)	Etsilene	delair® Etsilene 32-A-230-6 with EXH-3	1 Set	3122.00
3	Extractor and Tracking System consisting of:				
3.1	VEM3000 Video Extractor Module	VisSim	VEM3000	2 Sets	4490.50

ITEM NO.	DESCRIPTION	BRAND	MODEL	QTY	U.Price
3.2	Serial Interface Card	Black Box	2-Port RS-232/422/485 PCI Host Adapter	2 Sets	808.50
3.3	Industrial PC with Win XP Professional and additional HD. PC Advantek IPC-510MB, P4 2.8GHz, 1GB RAM, 2 HDDs, RAID0, DVD-RW, Win XP	Advantec	Advantek IPC-510MB	2 Sets	2405.50
3.4	17" Flat Panel Monitor	Samsung	SyncMaster17 740B	1 Set	289.00
3.5	ETS3000 Extractor & Tracker Software Licence	VisSim	ETS3000	2 Sets	26943.50
3.6	SD3000 Service Display Software Licence	VisSim	SD3000	2 Sets	4041.50
3.7	RVL3000 Radar Video Logging Software Licence	VisSim	RVL3000	2 Sets	3817.00
3.8	SM3000 Client Software Licence	VisSim	SM3000	2 Sets	3368.00
3.9	Automatic Radar Performance Monitoring Software Licence	VisSim	ARPM3000	1 Set	4811.00
3.10	Equipment Rack incl. KVM switch, cabling etc.	VisSim	RCK3000L	1 Set	3849.00
4	70 m Tower. Complete local supply				
4.1	Local Market Supply including: Supply, installation, foundation and erection (of tower only)	Al Babbain LeBlanc	70M Radar Tower VisSim design	1 Set	136146.25
4.2	Equipment Container (Shelter) complete w/ac and necessary equipment rack, level 40.5 m Dimension: 2600x1660x2750 mm	Al Babbain LeBlanc	NA VisSim design	1 Set	16263.48
4.3	Lightning Arrestor and Warning Light	Al Babbain LeBlanc	NA	1 kit	4219.00

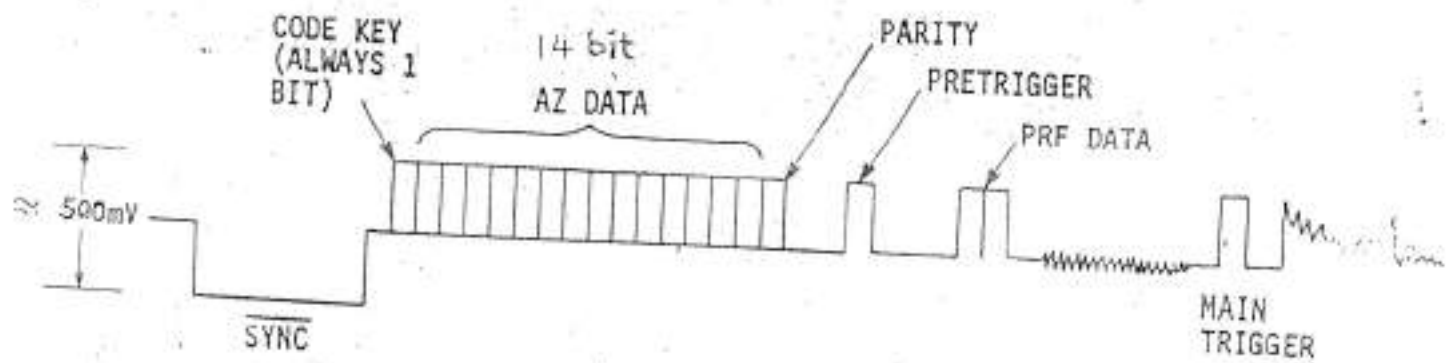
5	Microwave equipment (1.2km link). Dual redundant	NEC	Pasolink 38 GHz 1+1 16E1 + LAN	1 Set	13992.00
6	Network Equipment	HP	ProCurve 1800 Switch, 8 ports	1 Set	192.00
7	UPS. 8KVA, including card and sw for monitoring and automatic shut down	Eaton Power ware	PW9155, 8kVA/7.2kW, 3AC400V+ N/1AC230V, IP20	1 Set	6351.00

ITEM NO.	DESCRIPTION	BRAND	MODEL	QTY	U.Price
PORT SAID CONTROL CENTRE					
1	Digital to Composite Radar Signal Converter (VOC5000 Interface) Radar Control and Maintenance Workstation consists of the following:				
1.1	Industrial PC with Win XP Professional and additional HD. PC Advantek IPC-510MB, P4 2.8GHz, 1GB RAM, 2 HDDs, RAID0, DVD-RW, Win XP	Advantec	Advantek IPC-510MB	1 Set	2406.00
1.2	21" Flat Panel Monitor	Samsung	SyncMaster21 5TW FP	2 Sets	1193.00
1.3	TD3000 Traffic Display Software Licence	VisSim	TD3000	1 Set	30472.00
1.4	SM3000 Client Software License	VisSim	SM3000	1 Set	4811.00
1.5	Electronic Chart	Chart Pilot	VisSim SENC-PSV1	1 Set	1925.00
1.6	Digital to Composite Radar Signal Converter mounted in the radar control & maintenance PC	VisSim	DCOMP3000	1 Set	19245.00
1.7	Equipment Rack incl. KVM switch, cabling etc.	VisSim	RCK3000L	1 Set	3849.00
2	Network Equipment	HP	ProCurve 1800 Switch, 8 ports	1 Set	192.00
3	Microwave equipment (1.2km link). Dual redundant	NEC	Pasolink 38 GHz 1+1 16E1 + LAN	1 Set	13992.00

ITEM NO.	DESCRIPTION	BRAND	MODEL	QTY	U.Price
GENERAL					
1	Documentation set including installation, operation and maintenance manuals up to components level				
	Hard Copy	VisSim	NA	3 Sets	2416.67
	CD Copy	"	NA	1 Set	250.00
2	Project Implementation Schedule as per attach. no.5 starting from the order date	VisSim	MPS		
3	2 years guarantee starting from successful end of the reliability test for 2 months	VisSim			17163.00
Sub total price					722926.73
(-) commercial discount					63940.00
G. total price CIF Port Said					658986.73

Loay /Mona /visim order

(attach. 1)

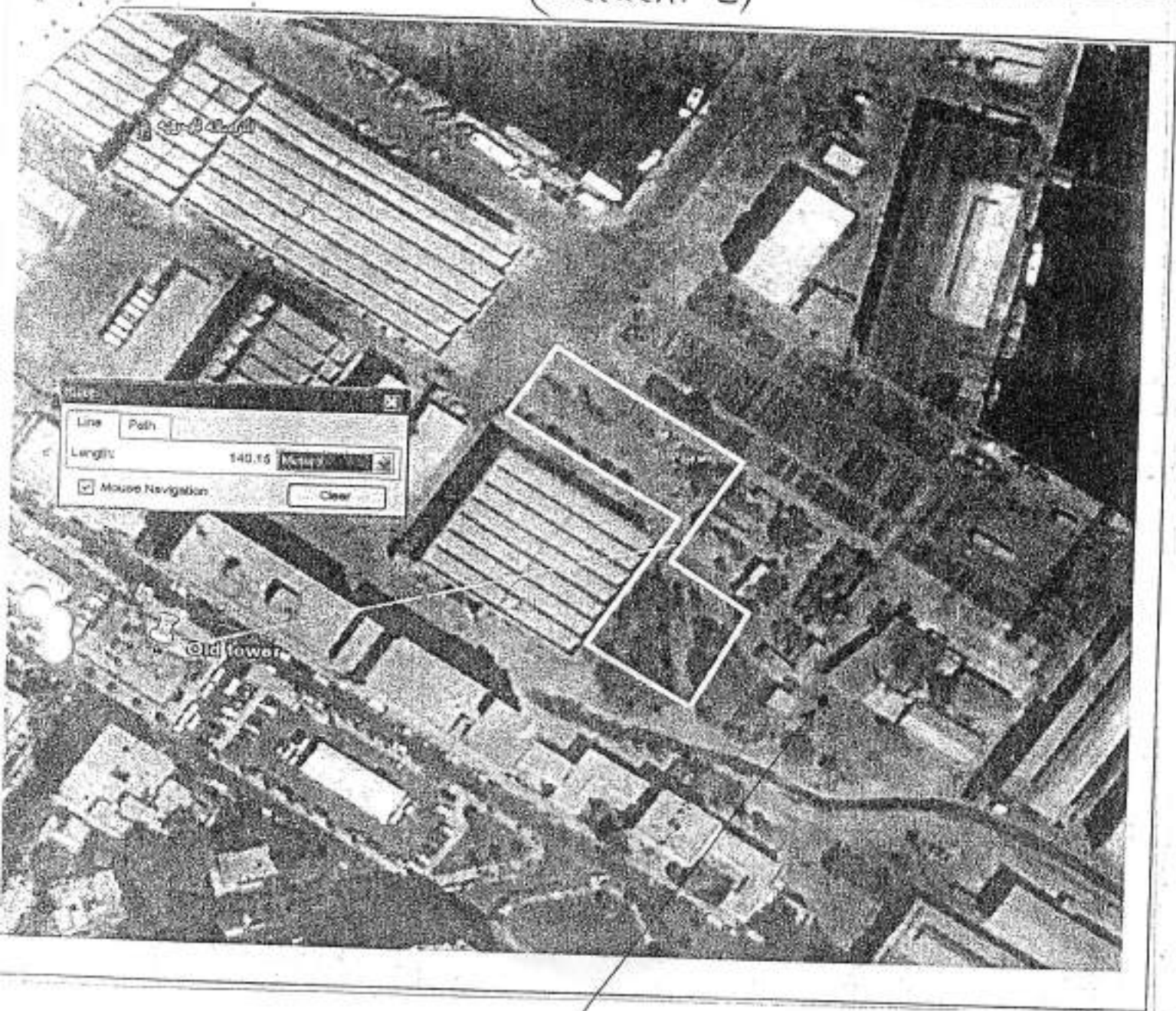


P.S Radar composite video O/P level Terminated into 75 ohm is 500 mv P-P

at P.S
VTS control center

Attachment .1-1

(attach. 2)



NEW RADAR TOWER LOCATION

1. BILL OF QUANTITIES – SPARE PARTS

All the spares are listed based on two years spare plan

Item	Equipment	Unit Price (EUR)	Qty for 2 Years
	Radar Dual Transceiver, GEM 25 KW		
	Magnetron	998	4
	Front End	705	2
	Limiter	369	2
	Modulator board	1 768	1
	Receiver board	823	1
	CPU board	5 031	1
	Power Supply Board	1 175	2
	Modulator power supply assembly	2 009	2
	RF switch	2 621	2
	Radar Antenna, CHL SNH37A-9100 9500-38		
	Electric motor	1 625	1
	Set of two motor shaft bearings	384	1
	One-channel X-band rotary joint with through-going shaft	6 871	1
	Shaft encoder, single channel, dual output	2 899	1
	Set of 6 sharpened bolts for spark gap ring lightning protection	241	1
	Pressure relief valve	4 420	1
	Lubricating oil for one antenna	533	1
	Waveguide Air Dryer, Etsiline 32-A-230-6		
	Circuit breaker	70	1
	Control Unit DCP-10 (20-30)	413	1
	Transformer	64	1
	Heater 40W 230VDC	79	1
	Relief valve	68	1
	Membrane pump 24VDC	77	1
	Vibration adsorber/shockmount	11	3
	Solenoid valve	68	1

Q7042

21-Sept-2007

Version 1

Item	Equipment	Unit Price (EUR)	Qty for 2 Years
	Humidity indicator	33	1
	Gasket for humidity indicator	2	1
	UPS Spares, PW9155, 10kVA/9kW, 3AC400V+N/1AC230V, IP20		
	UPS 10 KVA Spare Part Kit	5 569	1
	MW Link Spares, NEC PasoNeo		
	MW Links Spare Parts Set NEC PasoNeo	9 750	1
	Miscellaneous		
	HP ProCurve 1800-8G	163	1
	Samsung SyncMaster 21" 215TW	504	1
	Samsung SyncMaster 17" 740B	244	1
	Advantech IPC-510MB	2 031	1
	Spare HDD, Samsung SpinPoint T166 250GB SATA 16MB 7200RPM	89	2
	VisSim, VEM3000 Video Extractor Module	4 631	1
	BlackBox, IC133C-R2	436	1

The following tables have been prepared for the following CHL Antenna System Configuration:

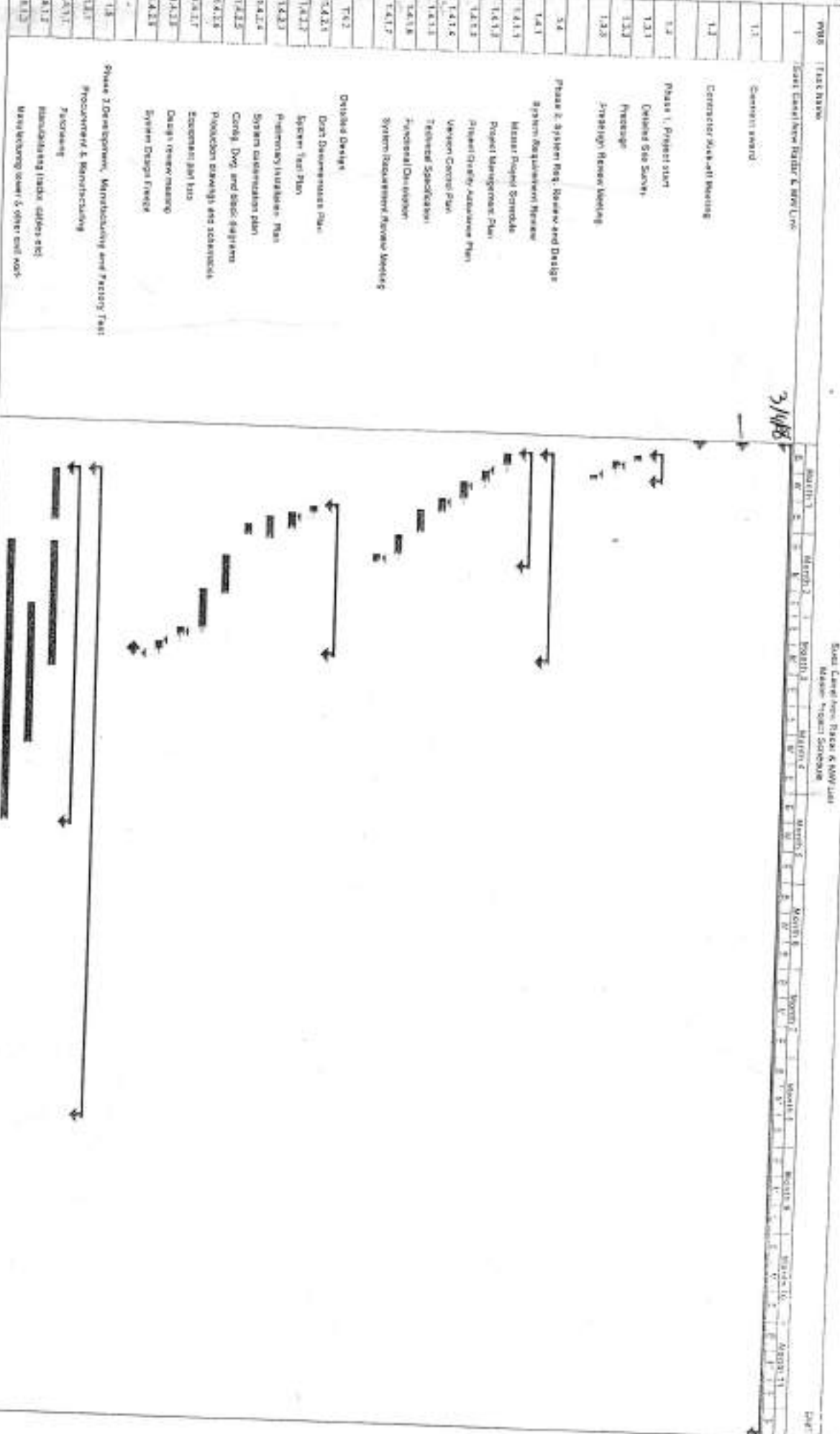
- An SNH37A/9100-9500/38 X-band antenna with fanbeam and horizontal polarisation mounted on a
- type ST2 antenna turning unit (for 20 rpm $\pm 10\%$), complete with:
 - a one-channel rotary joint with a **through-going shaft**
 - a dual shaft encoder assembly (tandem encoder) consisting of two identical, dual output optical incremental rotary shaft encoders with hollow through shaft, each incremental optical encoder delivering 8192 azimuth count pulses (ACP) and one azimuth reference pulse (ARP) per revolution. A stainless steel shaft connects the rotors of the two encoders and is coupled to the **through-going shaft** of the microwave rotary joint of the antenna turning unit with a bellows coupling;
 - a 3-phase 380/220 VAC 50 Hz electric drive motor and
 - a cylindrical support with inspection hatches for platform mounting of the radar antenna system.

Table 1: Antenna (X-band) with turning unit and pedestal

Item	Electrical Specification		Note
1	Antenna's design	To meet requirements of vessel traffic system	Comply
2	Antenna freq. band	9140 : 9470 MHz	Comply
3	Gain	≥ 38 dBi	Comply
4	VSWR	$\leq 1.3 : 1$	Comply
5	Polarization	horizontal	Comply
6	Elevation beam shape	fan	Comply
7	Horizontal B.W. @ - 3 dB	≤ 0.35 deg.	Comply
8	Elevation (-3dB0 beam-width	≤ 17 deg	Comply
9	Minimum first side lobe level suppression	27 dB	Comply
10	Increase to, at angles $\pm 10^\circ$ or more outside the main lobe	34 dB	Comply

Table 2:

Item	General, Mechanical and Environmental Specification		Note
1	Antenna rotation speed @ 50 Hz	20 RPM	Comply
2	Operational wind speed	80 knots	Comply
3	Non operational wind speed	100 knots	Comply
4	Two hot azimuth encoder	8192 pulses / rev	Comply
5	Radar azimuth accuracy & resolution	To be submitted	Radar system requirement!!!
6	Radar range accuracy & resolution	To be submitted	Radar system requirement!!!
7	Humidity	100%	Comply
8	Operational temperature	$0^\circ \text{C} : 50^\circ \text{C}$	Comply
9	Salt spray	As encountered in sea coastal region	Comply
10	Existing PWR	380/220 Vac $\pm 10\%$ 3Ø 50Hz ± 2 Hz	Comply



Project: Data Center Floor 2, NAV
Owner: USACE, 28-07

Task
Progress
Milestone

Summary
Held Up Task
Rider Up Milestone

Fixed Up Progress
Rider Up Task
Rider Up Milestone

Split
Rider Up Split
Rider Up Milestone

Decision

State Capital New Design & SRF/Lease
Master Project Schedule

Project Completion & First
between Construction
Construction today

Construction today

Construction Review

Final Construction Plan

Approval and start Date

Construction Review Meeting

Design Plan Review

Design Plan

Design Course Material

Design Review Meeting

Final Installation Review

Final Installation Plan & Design

Active Response Test Procedure

200 - Amortizable Test Procedure

Installation Review Meeting

Test Methodology Review Meeting

Item Assembly, Pre-FAT & FAT

System Assembly

System Integration Integration Test

Pre-FAT

FAT

FAT Report

FAT Review Submitted

Integration Audit

Integration Audit

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Day

Month 1 Month 2 Month 3 Month 4 Month 5 Month 6 Month 7 Month 8 Month 9 Month 10 Month 11

Week 1 Week 2 Week 3 Week 4 Week 5 Week 6 Week 7 Week 8 Week 9 Week 10 Week 11 Week 12

Task 1 Task 2 Task 3 Task 4 Task 5 Task 6 Task 7 Task 8 Task 9 Task 10 Task 11 Task 12

Task 13 Task 14 Task 15 Task 16 Task 17 Task 18 Task 19 Task 20 Task 21 Task 22 Task 23 Task 24

Task 25 Task 26 Task 27 Task 28 Task 29 Task 30 Task 31 Task 32 Task 33 Task 34 Task 35 Task 36

Task 37 Task 38 Task 39 Task 40 Task 41 Task 42 Task 43 Task 44 Task 45 Task 46 Task 47 Task 48

Task 49 Task 50 Task 51 Task 52 Task 53 Task 54 Task 55 Task 56 Task 57 Task 58 Task 59 Task 60

Task 61 Task 62 Task 63 Task 64 Task 65 Task 66 Task 67 Task 68 Task 69 Task 70 Task 71 Task 72

Task 73 Task 74 Task 75 Task 76 Task 77 Task 78 Task 79 Task 80 Task 81 Task 82 Task 83 Task 84

Task 85 Task 86 Task 87 Task 88 Task 89 Task 90 Task 91 Task 92 Task 93 Task 94 Task 95 Task 96

Task 97 Task 98 Task 99 Task 100 Task 101 Task 102 Task 103 Task 104 Task 105 Task 106 Task 107 Task 108

Task 109 Task 110 Task 111 Task 112 Task 113 Task 114 Task 115 Task 116 Task 117 Task 118 Task 119 Task 120

Task 121 Task 122 Task 123 Task 124 Task 125 Task 126 Task 127 Task 128 Task 129 Task 130 Task 131 Task 132

Task 133 Task 134 Task 135 Task 136 Task 137 Task 138 Task 139 Task 140 Task 141 Task 142 Task 143 Task 144

Task 145 Task 146 Task 147 Task 148 Task 149 Task 150 Task 151 Task 152 Task 153 Task 154 Task 155 Task 156

Task 157 Task 158 Task 159 Task 160 Task 161 Task 162 Task 163 Task 164 Task 165 Task 166 Task 167 Task 168

Task 169 Task 170 Task 171 Task 172 Task 173 Task 174 Task 175 Task 176 Task 177 Task 178 Task 179 Task 180

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Task 193 Task 194 Task 195 Task 196 Task 197 Task 198 Task 199 Task 200 Task 201 Task 202 Task 203 Task 204

Task 205 Task 206 Task 207 Task 208 Task 209 Task 210 Task 211 Task 212 Task 213 Task 214 Task 215 Task 216

Task 217 Task 218 Task 219 Task 220 Task 221 Task 222 Task 223 Task 224 Task 225 Task 226 Task 227 Task 228

Task 229 Task 230 Task 231 Task 232 Task 233 Task 234 Task 235 Task 236 Task 237 Task 238 Task 239 Task 240

Task 241 Task 242 Task 243 Task 244 Task 245 Task 246 Task 247 Task 248 Task 249 Task 250 Task 251 Task 252

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Task 277 Task 278 Task 279 Task 280 Task 281 Task 282 Task 283 Task 284 Task 285 Task 286 Task 287 Task 288

Task 289 Task 290 Task 291 Task 292 Task 293 Task 294 Task 295 Task 296 Task 297 Task 298 Task 299 Task 300

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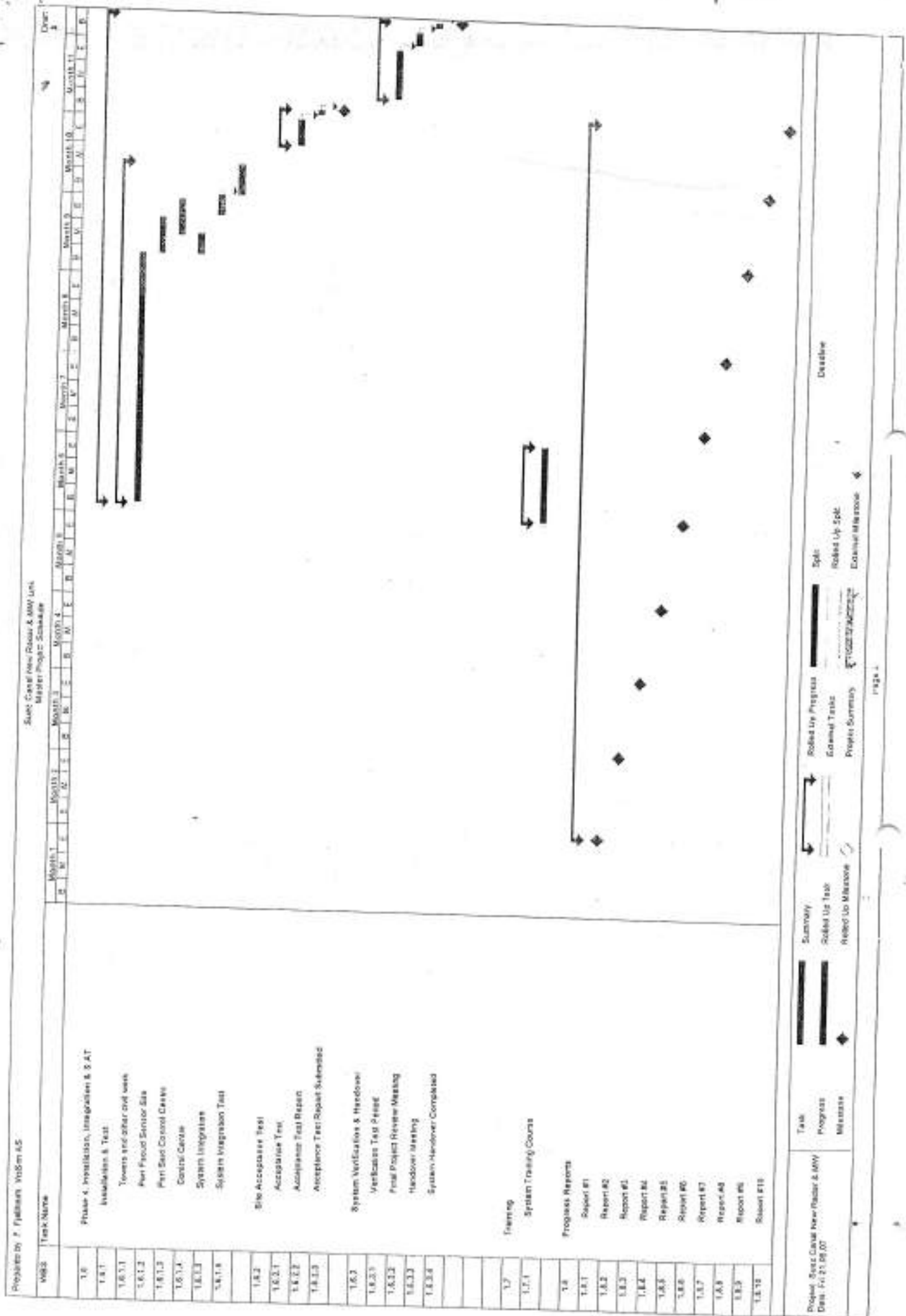
Task 433 Task 434 Task 435 Task 436 Task 437 Task 438 Task 439 Task 440 Task 441 Task 442 Task 443 Task 444

Task 445 Task 446 Task 447 Task 448 Task 449 Task 450 Task 451 Task 452 Task 453 Task 454 Task 455 Task 456

Task 457 Task 458 Task 459 Task 460 Task 461 Task 462 Task 463 Task 464 Task 465 Task 466 Task 467 Task 468

Task 469 Task 470 Task 471 Task 472 Task 473 Task 474 Task 475 Task 476 Task 477 Task 478 Task 479 Task 480

Suez Canal New Radar & MW Link
Master Project Schedule



Task
Summary
Roll Up Task
Roll Up Milestone
Split
Roll Up Split
External Task
Project Summary
External Milestone

Project: Suez Canal New Radar & MW Link
Date: Fri 21 Dec 07