



**The European Union's Tacis programme
for Azerbaijan, Georgia and Armenia**

**Supervision of supply of an
optical cable for communication
and signalling to the railways of
Azerbaijan, Georgia and
Armenia**

Progress report



This project is funded by
European Union



A project implemented by
FINNROAD Ltd.



Supervision of supply of an
optical cable for
communication and signalling
to the railways of Azerbaijan,
Georgia and Armenia
Progress Report

31 December 2002

Form 1.2. REPORT COVER PAGE

Project Title: Supervision of Supply of an Optical Cable System for Communication and Signalling to the Railways of Azerbaijan, Georgia and Armenia

Project Number : Traceca1999

Country : Azerbaijan, Georgia, Armenia

	Local Operator	Local operator	Local Operator	EC Consultant
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Date of report : 31.12.2002

Reporting period : Progress report

Author of report : RAS/Finnroad, IK/Corenet

EC Monitoring team _____
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EC Delegation _____
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TACIS _____
[task manager] [name] [signature] [date]

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1. Project Synopsis

Form 1.3 PROJECT SYNOPSIS

Project Title:	: Supervision of Supply of an Optical Cable System for Communication and Signalling to the Railways of Azerbaijan, Georgia and Armenia
Project Number	: Traceca1999
Country	: Azerbaijan, Georgia, Armenia

Wider objectives:

The wider objective of the programme in Caucasus is the support the full use of the Traceca transport corridors through Caucasus and provide means for efficient transmission of telecommunications data for both railways and private telecommunications companies throughout the Caucasus region. It will enhance safety and security for railway operations and simultaneously enable the private telecom operators to penetrate the Trans-Caucasus communications market.

Specific Project objectives:

The objectives of this consulting assignment is to provide technical supervision of the manufacture, supply, installation, witness testing jointly with the Railways and hand-over of the optical cable system, as well as monitoring that adequate training and transfer of know-how is provided by the supplier. The consultant provides also certificates for partial and final acceptance.

Outputs:

Optical cable system installed and operational according to specifications and approved by the Supervision consultant and Recipients

Inputs:

Supervision will include monitoring and approval of manufacture and factory tests, monitoring of works progress on site, monitoring and approval of partial field testing and final testing, provision of certificates to the Contractor on accepted deliveries. Supervision will be carried out using part time expatriate principal supervisor, part time expatriate technical supervisors, as well as part time local supervisors one in each country.

Project Starting Date: 21.8.2002

Project Duration: 9 months

2. Summary of project progress since the start

2.1 General

The contract between EC and the Supervising Consultant has been signed on August 21, 2002. The extension of the contract between EC and the Contractor (Siemens) has been signed on August 27, 2002. The completion date of the whole project is 27th of May 2003.

The new dead lines for the works in all three countries to complete the whole project by the 27th of May 2003 have been agreed in the signed minutes of coordination team meetings. The time schedule for the testing and acceptance is part of the time schedule of the project. The supervision, testing and acceptance programme of the Consultant will be finalised based on the supply schedule.

The supply of cables, pipe, equipment and system as well as the installation and connection of the system are the responsibility of the Contractor, whereas the design and implementation of cable laying and repair and facilitation of technical rooms are carried out by the Railways in each country. The role of the Supervising Consultant is to monitor project progress, witness testing jointly with the Railways, and provide certificates for partial and final acceptance.

The inception phase was reported in the inception report in October 2002.

2.2 Coordination team Meetings

Kick off Meetings were held in Azerbaijan, Georgia and Armenia between 26.9 –1.10.2002. The Tacis Task Manager for the Project, representatives of the Recipient, the Contractor and Supervising Consultant participated in the meetings.

After the kick-off meetings there has been one set of Coordination team meetings in the project countries. Representatives of the Recipient, Contractor and Supervising Consultant have participated in these meetings.

It was agreed in the Coordination Team Meetings that the next meeting would be held in March 2003.

2.3 Project Progress

2.3.1 Azerbaijan Railways

The cable and duct are installed completely and the acceptance tests have been performed and signed by Siemens. All technical rooms are at the moment rehabilitated and the small technical rooms have air conditioning. The remaining air condition units (11

pc) are in installation phase. Siemens has informed that there are still some deficiencies in some of the technical rooms. All deliveries are completed and the installation works of the equipment are in progress.

2.3.2 Georgian Railways

Because of a storm in the end of November 10 of the technical rooms had to be rehabilitated again. Some A/Cs had to be installed in the technical rooms and some fuses had to be changed to meet the standard.

An explosion caused by gas leak occurred in Tbilisi Crossing in December. The entire technical room at the station must be rehabilitated and re-equipped and new cable and equipment must be delivered and installed.

The duct has been laid and cable has been blown completely. The remaining deficiencies in the cable that were detected in the acceptance test made by Siemens in November have been corrected. Siemens has informed that there are still some new deficiencies in the cable caused by thieves and rats. Siemens has also informed that there are still some deficiencies in some of the technical rooms. PTT connection works are in progress and Railways has given the data to Siemens for Tbilisi station. Samtredia situation will be clarified later jointly with Siemens after the signalisation type will be specified.

All deliveries are completed. Installation works of the equipment are in progress.

2.3.3. Armenian Railways

Reconstruction works of the technical rooms, including power supply and grounding are completed. Air conditioning will be completed simultaneously with the installation of OTN and PABX. Siemens has informed that there are still some deficiencies in some of the technical rooms. The duct has been laid and cable blown and the works were accepted on the 15th of November 2002.

Delivery of the duct and cable are completed. Deliveries of the equipment are completed except the power supplies of Hicom. The installation of the closures has started but the installation works of ODFs, OTN and PABX have not yet started.

Testing and approval programme and final time schedule

It has been agreed in the kick off meetings that the Contractor and Railways will agree on the installation and testing programme. The Contractor will prepare together with the Railways the final time schedule for the installation and testing without delay after the mission.

Risks

The new dead line of the Contract is May 2003. In order to complete the project according to the specified dead lines, cooperation of all parties is required to be to be fully aware of the project progress and practical problems and to adjust the actions accordingly. In general all

dead lines of the project are so tight that in order to complete the project by 27th of May, no deviation in any of the tasks is acceptable.

Azerbaijan Railways

No major problems can be seen in completion of the project by the agreed dead-lines of the project.

Georgian Railways

The explosion in Tbilisi Crossing (Force Major) will cause delays in completion of the system. Therefore quick actions and rescheduling the system must be done to minimise the effects of the missing station.

If some additional mistakes will be found in the civil works the completion of the installation of the equipment in time is not possible and therefore the completion of the project will be threatened.

Armenian Railways

The testing period in Armenia is very tight (by the 21th of May 2003) and very close to the completion of the project (by the 27th May 2003) and therefore there is no reserve for correction or re-testing of the system if necessary.

If some additional faults will be found in the civil works, completion of the installation of the equipment is not possible in time and therefore the completion of the project will be threatened.

3. Summary of project planning for the remainder of the project

The duties of the supervision assignment for the remainder of the project include the following tasks:

- a) Overall supervision of the project by the EU consultant and the local supervisors
- b) Assessment and approval of the following documents and processes:
 - The site acceptance test procedures
- c) Witnessing of the following activities according to a sampled and selected witness program:
 - The on-site installation of optical cable, transmission and telephone equipment
 - The partial acceptance tests and system acceptance tests
 - The completion tests
- c) Participation in the coordination team meetings and project meetings

- d) Reporting as agreed in the Inception Report
- e) Provision to Tacis of the following certificates:
 - Certificates of Delivery (on the basis on the hand-over protocols signed by the Railways)
 - Certificates of Progress
 - Certificates of Completion
- f) Environmental monitoring of the project
- g) List of consultant tasks during the ongoing reporting period:
 - Coordination Team Meetings
 - Certificate of deliveries
 - Monitoring of completion of civil works
 - Monitoring of equipment installation
 - Monitoring and witness testing of the system

4. Project progress in reporting period

4.1 Achievements in comparison with planned results

So far there is no major deviation in the achievements in comparison with planned results.

In October 2002 the representatives of the three recipient countries signed a protocol where the recipient enterprise accept that all additional cost outside the project scope shall be financed and paid by the recipient countries.

4.2 Coordination team Meetings

The latest Coordination team meetings were held between 9.12-16.12.2002. All the meetings were participated by the Recipient, Contractor and Supervising Consultant. The new deadlines were agreed in the Coordination Team Meetings. The next meetings have been agreed for March 2003. The minutes of the meetings are in Annex 5.

4.3 Progress of Works

4.3.1 Azerbaijan Railways

Civil work progress

- The acceptance tests for duct laying and cable blowing have been performed and signed by Siemens.
- All technical rooms (48 pcs) are at the moment rehabilitated. The small technical rooms (37 pcs) have air conditioning. The remaining air conditions (11 pcs) are under installation.

Contractor's work progress

- All deliveries are completed
- All OTNs (48) and 6 PABX (out of 12) have been installed
- 116 closures and 43 ODFs have been installed

The agreed deadlines for the completion of the tasks are:

Responsibilities of Railways:

- PTT connections in Baku and Ganja should be completed by the end of December 2002. PTT connections are not finalised yet.

Responsibilities of Siemens:

- Installation of the equipment must be completed by the 30th of January 2003.
- Commissioning of the system must be completed by the 28th of February 2002

The partial acceptance test for the system can then start on the 1st of March 2003. The partial acceptance certificate for Azerbaijan can therefore be issued by the end of March 2003. After Test of completion will be completed Finnroad will issue a "Test of completion certificate".

4.3.1 Georgian Railways

Civil work progress

- Because of a storm in the end of November some of the technical rooms must be rehabilitated again. 10 rooms are requiring rehabilitation (roof repair, window repair). A/C:s have not been installed in all rooms. Fuses have to be changed to meet the standard.
- For the explosion caused by gas leak in Tbilisi Crossing in December the whole technical room must be rehabilitated and re-equipped and new cable and equipment must be delivered and installed.
- The duct has been laid and cable has been blown completely.
- It was discussed in the coordination team meeting about the remaining deficiencies in the cable basing on the acceptance test made by Siemens. The actual number of sites requiring corrections was totally nine out of which five are waiting for closures made by Siemens and four requiring also cabling repairs.
- Siemens has noted that there are still some damages or deficiencies caused eg. by thieves and rats.
- PTT connection works are in progress and Railways has given the data to Siemens for Tbilisi station. For Samtredia it will be clarified later jointly with Siemens after the signalisation type will be specified.

Contractor's work progress

- All deliveries are completed.
- All OTNs in Georgia and 9 PABX (out of 11) have been installed. The installation of PABXs for Tbilisi and Samtredia is in progress but has not yet been completed.

The agreed deadlines for the completion of the tasks are:

Responsibilities of the Railways:

- The finalisation of the technical rooms should be done by the 31st of December 2002. Siemens has informed that there are still some deficiencies in some of the technical rooms.
- The remaining four corrections in the cabling should be completed by the 31st of December 2002.

Responsibilities of the contractor Siemens:

- The installation of the closures for the five sites which have already been repaired and four sites with remaining damages will be done and tested by the progress of the repaired cable.
- The tested and accepted cable sections must be immediately certified.
- Installation of the equipment must be completed by the 21st of January 2003.
- Commissioning of the system must be completed by the 28th of February 2003.

The partial acceptance test and system test in Georgia will start on the 1st of March 2003 and it will be completed by the 31st of March 2003.

4.3.3 Armenian Railways

Civil work situation

- Reconstruction works of the technical rooms with power supply and grounding are completed. Air conditioning will be implemented simultaneously with the installation of OTN and PABX.
- According to the information from Siemens there are still some deficiencies in the technical rooms and cable which must be corrected.
- The duct has been laid and cable blown. Civil works concerning the cable were accepted on the 15th of November 2002. The last three sections: Echmiadzin-Sovetakan, Dalarik-Karakert, Karakert-Artani have been corrected.

Contractor's work progress

- Delivery of the duct and cable are completed
- Deliveries of the equipment are completed except the power supplies of Hicom
- All 66 closures and no ODFs have been installed yet.
- The installation works of OTN and PABX have not yet started.

The agreed deadlines for the completion of the tasks are:

Responsibilities of Railways:

- The Railways should provide 2Mbit digital path from PTT to the technical room by the 31st of December 2002.
- The Railways should give to Siemens the customer data by the 31st of December 2002.
- Siemens has informed that there are still some deficiencies in some of the technical rooms.

Responsibilities of Siemens:

- Installation of the equipment must be completed by the 15th of March 2003.
- Commissioning of the system must be completed by the 20th of April 2003.

The acceptance tests for the system will start on the 21st of April 2003. Testing of the system must be completed by the 21th of May 2003.

4.4 Deviations from updated original planning and reasons

The following main steps were noted from the updated time schedule:

- The progress of the project in Azerbaijan Railways is mainly following the updated time schedule.
- The progress of the project in Georgian Railways is mainly following the updated time schedule. The re-implementation of Tbilisi Crossing station (Force Major) will anyhow cause deviation to the completion of the system.
- The progress of the project in Armenian Railways is mainly following the updated time schedule.

4.5 Specific action needed from the local authorities- including the Coordination Units concerned and/or the EC (suggested solutions)

No further extension to project completion can be granted anymore. Therefore also the local authorities should do their best efforts to help the Railways and Siemens to meet their dead lines. For this reason Siemens also needs to keep active supervision in order to get all the civil works and its own works completed in time.

5. Project planning for next reporting period

The special actions for the next reporting period are:

- The monitoring the acceptance test of the cabling in Georgia and Armenia
- The monitoring the acceptance test of the technical rooms in Azerbaijan, Georgia and Armenia
- The monitoring of the installation of the equipment in all three countries
- The witness testing of the partial and system acceptance tests in Azerbaijan and Georgia
- Monitoring the reconstruction of cabling and equipment installation in Tbilisi Crossing

LIST OF ANNEXES

- Annex 1: FORM 2.2 PROJECT PROGRESS REPORT
- Annex 2: FORM 2.3 RESOURCE UTILISATION REPORT
- Annex 3: FORM 2.4 OUTPUT PERFORMANCE REPORT
- Annex 4: FORM 2.5 PLAN OF OPERATIONS FOR THE NEXT PERIOD
- Annex 5: MINUTES OF THE MEETINGS IN DECEMBER 2002.

Annex 1: FORM 2.2 PROJECT PROGRESS REPORT

Form 2.2. PROJECT PROGRESS REPORT

Project title : Caucasus Optical Cable System Supervision				Project number : Traceca1999				Country :Azerbaijan, Georgia, Armenia				Page :				
Planning period : 07-12/2002				Prepared on : 31.12.2002				EC Consultant : Finnroad with Railtelia, Helsinki								
Project objectives : Specific objective of this supervision project is to assure the proper technical execution of the supply of an optical cables system for communication and signalling to the railways of Azerbaijan, Georgia and Armenia. The overall objective is to improve communication systems, promote the full use of TRACECA corridor as well as to increase competition in the telecommunications sector in Caucasus.																
No		ACTIVITIES		TIME FRAME 2002				INPUTS								
				Months				PERSONNEL EC CONSULTANT		LOCAL CONSULTANTS		EQUIPMENT AND MATERIAL		OTHER		
				07	08	09	10	11	12	Planned	Utilised	Planned	Utilised	Planned	Utilised	Planned
1.	Coordination team meetings							23 d	23 d	20 d	20 d					Flights + DSAs as per contract
2.	Certificate of deliveries							0 d	0 d	0 d	0 d					
3.	Monitoring completion of the technical rooms in Azerbaijan							1 d	1 d	6 d	6 d					
4.	Monitoring cable correction and technical rooms in Georgia							1 d	1 d	8 d	5 d					
5.	Monitoring cable correction and technical rooms in Armenia							2 d	2 d	6 d	6 d					
6.	Monitoring equipment installation in Azerbaijan, Georgia and Armenia							2 d	2 d	5 d	5 d					
7.	Monitoring commissioning, witness testing							0 d	0 d	0 d	0 d					
8.	Certificate of partial and system tests							0 d	0 d	0 d	0 d					
9.	Progress reports / Inception report							4 d	4 d	5 d	5 d					
10.	Certificate of Completion report							0 d	0 d	0 d	0 d					
				TOTAL (days)				33 d	33 d	50 d	50 d					

Annex 2: FORM 2.3 RESOURCE UTILISATION REPORT

FORM 2.3 RESOURCE UTILIZATION REPORT

Project title: Caucasus Optical Cable System Supervision		Project number: Traceca 1999		Country: Azerbaijan, Georgia, Armenia		Page: 1/1
Planning period: 21.8.2002 - 31.12.2002		Prepared on: 31.12.2002		EC Consultant: Finnroad with Corenet, Helsinki		
Project objectives: See Synopsis						
SOURCE INPUT	TOTAL PLANNED	PERIOD PLANNED (4 mth)	PERIOD REALISED (4 mth)	TOTAL REALIZED	AVAILABLE FOR REMAINDER	
PERSONNEL						
EC Consultant	95 d	33 d	33 d	33 d	62 d	
Local Experts	150 d	50 d	50 d	50 d	100 d	
Sub-total						
EQUIPMENT AND MATERIAL						
Sub-total						
OTHER INPUTS						
Sub-total						
TOTAL						

Annex 3: FORM 2.4 OUTPUT PERFORMANCE REPORT

FORM 2.4 OUTPUT PERFORMANCE REPORT

Project title: Caucasus Optical Cable System Supervision	Project number: Traceca 1999	Country: Azerbaijan, Georgia, Armenia	Page: 1/1
Prepared on: 31.12.2002		EC Consultant: Finnroad with Corenet , Helsinki	

Output results	Deviation original plan + or - %	Reason for deviation <i>Verifiable Indicators</i>	Comment or constrains & assumptions
1. Reconstruction works (including air conditioning, grounding, power supply) completed by Railways in all 3 countries (1.11.2002; except air conditioning in Arm 15.3.2003)	+5 %	1. Site approval letters has not yet issued by Supplier to each Recipient	1.
2. Cable corrections must be completed in Armenia and Georgia (31.12.02)	+5 %	2. Cable joint test results has not submitted by Supplier	2. C: Siemens will make a complete list of the deficiencies by the 14 th of October 2002.
3. Equipment delivery completed by Supplier in all 3 countries	0 %	3. <i>No. and type of equipment verified by Consultant to match with the supply contract</i>	3. A: Consultant can check delivery upon arrival in one location in each country
4. Installation and commissioning of the system completed by Supplier (20.04.03)	0 %	4. <i>Partial and system Acceptance Test reports and Test of Completion reports provided by Supplier and approved by Consultant</i>	4. X
5. Training of system operators completed by Supplier (21.05.03)	0 %	5. <i>Lists of trained staff in each country including signed presence sheets, as well as contents and material of each training course submitted by Supplier and approved by Recipient</i>	5. A: Adequate number of qualified trainees will be made available by each Recipient
6. As-built drawings of system delivered by Supplier to the Recipients (21.05.03)	0%	6. <i>As-built drawings approved by Recipients</i>	6. A: Translations of all manuals shall be made by qualified telecom technical translators
7. System handed over to the Recipients (21.05.03)	0%	7. <i>Certificate of Acceptance issued by each Recipient, Certificate of Completion issued by Consultant</i>	7. C: Consultant's contract expires before the handing over of the system

Annex 4: FORM 2.5 PLAN OF OPERATIONS FOR THE NEXT PERIOD

Form 2.5. PLAN OF OPERATIONS FOR THE NEXT PERIOD (Work programme)

Project title : Caucasus Optical Cable System Supervision		Project number : Traceca1999		Country :Azerbaijan, Georgia, Armenia		Page :					
Planning period : 01-05/2003		Prepared on : 31.12.2002		EC Consultant : Finnroad with Corenet, Helsinki							
Project objectives: Specific objective of this supervision project is to assure the proper technical execution of the supply of an optical cables system for communication and signalling to the railways of Azerbaijan, Georgia and Armenia. The overall objective is to improve communication systems, promote the full use of TRACECA corridor as well as to increase competition in the telecommunications sector in Caucasus.											
		TIME FRAME						INPUTS			
		First half / 2002 (months)			present contract end date			PERSONNEL		EQUIPMENT AND MATERIAL	OTHER
No	ACTIVITIES	01	02	03	04	05	06	EC Consultant	Local Experts		
1.	Coordination team meetings							22 d	24 d	Office equipment	Flights + DSAs as per contract
2.	Certificate of deliveries							2 d	0 d		
3.	Monitoring acceptance test of the cabling							1 d	8 d		
4.	Monitoring acceptance test of the technical rooms							1 d	8 d		
5.	Monitoring equipment installation in Azerbaijan, Georgia and Armenia							4 d	22 d		
6.	Witness testing of the partial and system testing							22 d	22 d		
7.	Certificate of partial and system tests							2 d	2 d		
8.	Progress reports							3 d	8 d		
9.	Certificate of Completion report							5 d	6 d		
							TOTAL (days) Available in contract	62 d (95) d	100 d (150) d		

Annex 5: MINUTES OF THE COORDINATION TEAM MEETINGS

SUPPLY OF AN OPTICAL CABLE FOR COMMUNICATION AND SIGNALLING TO THE RAILWAYS OF GEORGIA, ARMENIA AND AZERBAIJAN

COORDINATION TEAM MEETING IN BAKU, 9.12. 2002

MINUTES OF THE MEETING

Participants:

National Railways:	Mr Vahid Karaev Mr Djamshid Garakhanov Mr Gulmaliyev Rafik
Contractor (Siemens):	Mr Juergen Hellwig Mr Thomas Hubert Ms Sevinj Kerimova
Supervisor (Finnroad):	Ms Irja Koskela Mr Mamedali Aminov

1. Opening of the meeting

Mr Karaev opened the meeting and welcomed all the participants. Mr Karaev briefed on the progress achieved up to date. Siemens stated that no problems or questions exist at the moment.

2. Present situation of the Project

Civil work progress

- The acceptance tests for duct laying and cable blowing have been performed and signed by Siemens.
- All technical rooms (48 pcs) are at the moment rehabilitated. The small technical rooms (37 pcs) have air conditioning.

Contractor's work progress

- All deliveries are completed
- 47 OTN (out of 48) and 5 PABX (out of 12) have been installed
- 116 closures and 36 ODFs have been installed

3. Deadlines

Responsibilities of Railways:

- PTT connections in Baku and Ganja must be completed by the end of December 2002.

Responsibilities of Siemens:

- Installation of the equipment must be completed by the 30th of January 2003.
- Commissioning of the system must be completed by the 28th of February 2002

The partial acceptance test for the system can then start on the 1st of March 2003. The partial acceptance certificate for Azerbaijan can therefore be issued by the end of March 2003. After Test of completion will be completed Finnroad will issue a "Test of completion certificate".

4. Time-schedule of the project

- The time-schedule with the detailed test plan must be provided to EC via Finnroad by Siemens and Railways without delay after the mission.

5. Test procedures and Certificates

- The test report shall be issued by Siemens to Railways and Finnroad for acceptance no more than 14 days after completion of the test.
- After the acceptance of the test Finnroad will issue test certificate.

6. Next coordination team meeting

- Next coordination team meeting will be held in March 2003.

Signed in Azerbaijan on the 10th of December 2002

For Azerbaijan Railways

Mr Vahid Karaev
Head of Department

For Contractor

For Supervising Consultant

Mr Juergen Hellwig
Project Manager

Ms Irja Koskela
Principal Supervisor

COORDINATION TEAM MEETING IN TBILISI, 12.12. 2002

MINUTES OF THE MEETING

Participants:

National Railways:	Mr Tengiz Donadze Mr Soso Rostiashvili Mr Tamaz Kuchava
Contractor (Siemens):	Mr Juergen Hellwig Mr David Morgoshia Ms Eka Kandelaki
Supervisor (Finnroad):	Mr Raimo Sallanmaa Ms Irja Koskela Mr Mamuka Chantladze

Sakkavshirmsheni,
Subcontractor of NR:

Temur Kutchukhidze

1. Opening of the meeting

Mr Donadze opened the meeting and welcomed all the participants.

The ambition and wish of all parties of the project is to finalise the project successfully inside the specified dead-lines of this protocol.

2. Present situation of the Project

Civil work progress

- Because of storm two weeks ago some of the technical rooms must be rehabilitated again. 10 rooms are requiring rehabilitation (roof repair, window repair). A/C:s have not been installed in all rooms. Fuses have to be changed to meet the standard.
- The duct has been laid and cable has been blown completely.
- The meeting discussed the remaining deficiencies in the cable basing on the acceptance test made by Siemens. The actual number of sites requiring corrections is totally nine out of which five are waiting for closures and four requiring also cabling repair.
- PTT connection works are in progress and Railways has given the data to Siemens for Tbilisi station. For Samtredia it will be clarified later jointly with Siemens after the signalisation type will be specified.

Contractor's work progress

- All deliveries except the power supply of Hicom are completed.
- Additional test equipment (not including in to this contract) has not yet arrived.
- Additional 20 closures (not including in to this contract) have delivered.
- All OTNs in Georgia and 9 PABX (out of 11) have been installed. The installation of PABXs for Tbilisi and Samtradia is in progress but has not yet been completed.

3. Deadlines

Responsibilities of Railways:

- The finalisation of the technical rooms will be done by the 31st of December 2002.
- The remaining four corrections in the cabling will be completed by the 31st of December 2002.

Responsibilities of Siemens:

- The installation of the closures for the five sites which have already been repaired and four sites with remaining damages will be done and tested by the progress of the repaired cable.
- The tested and accepted cable sections must be immediately certified.
- Installation of the equipment must be completed by the 21st of January 2003.
- Commissioning of the system must be completed by the 28th of February 2003.

The partial acceptance test and system test in Georgia will start on the 1st of March 2003 and it will be completed by the 31st of March 2003.

4. Time-schedule of the project

- The time-schedule with the detailed test plan must be provided by Siemens and Railways to EC via Finnroad without delay after the mission.

5. Test procedures and Certificates

- Siemens has presented the detailed test procedures to Railways (part of the HLD-documentation).
- The tests will be performed section by section according to the test program.
- The test report shall be issued by Siemens to Railways and Finnroad for acceptance no more than 14 days after completion of the test.
- After the acceptance of the test in Georgia, Finnroad will issue test certificates.

The partial acceptance test and system test can be performed country by country separately.

6. Other matters

Siemens and Georgian Railways have agreed the organisation of the on-the-job training for the OTN and PABX systems during the commissioning phase.

7. Next coordination team meeting

Next coordination team meeting will be held in March 2003.

Signed in Georgia on the 13th of December 2002.

For Georgian Railways

Mr Tengiz Donadze

Technical Director, Deputy General Director

For Contractor

For Supervising Consultant

Mr Juergen Hellwig
Project Manager

Ms Irja Koskela
Principal Supervisor

COORDINATION TEAM MEETING IN YEREVAN, 16.12. 2002

MINUTES OF THE MEETING

Participants:

Armenian Railways: Mr Vahagn Karaghezyan
Mr Arshak Hovanessyan

Contractor (Siemens): Mr Juergen Hellwig
Mr David Morgoshia
Ms Zara Airyan
Supervisor (Finnroad): Mr Raimo Sallanmaa
Ms Irja Koskela
Mr Khachatur Manukyan

1. Opening of the meeting

Mr Karaghezyan opened the meeting and welcomed all the participants.

It was mutually noted that all the dead-lines have been met as it was agreed in the last coordination team meeting with the Minister 30.9.2002.

2. Present situation of the Project

Civil work progress

- Reconstruction works of the technical rooms with power supply and grounding are completed. Air conditioning will be implemented simultaneously with the installation of OTN and PABX.
- The duct has been laid and cable blown. Civil works concerning the cable were accepted on the 15th of November 2002. The last three sections : Echmiadzin-Sovetakan, Dalarik-Karakert, Karakert-Arteni have been corrected.

Contractor's work progress

- Delivery of the duct and cable are completed
- Deliveries of the equipment are completed except the power supplies of Hicom
- All 66 closures and no ODFs have been installed yet.
- The installation works of OTN and PABX have not yet started.

3. Deadlines

Responsibilities of Railways:

- The Railways must provide 2Mbit digital path from PTT to the technical room by the 31st of December 2002.
- The Railways must give to Siemens the customer data by the 31st of December 2002.

Responsibilities of Siemens:

- Installation of the equipment must be completed by the 15th of March 2003.
- Commissioning of the system must be completed by the 20th of April 2003.

The acceptance tests for the system will start on the 21st of April 2003. Testing of the system must be completed by the 21th of May 2003.

4. Time-schedule of the project

The time-schedule with the detailed test plan must be provided to EC via Finnroad by Siemens and Railways without delay after the mission.

5. Test procedure and Certificates

- Siemens has presented the detailed test procedures to Railways (part of the HLD-documentation).
- The tests will be performed section by section according to the test program.
- The test report shall be issued by Siemens to Railways and Finnroad for acceptance no more than 14 days after completion of the test.
- After the acceptance of the test in Armenia, Finnroad will issue test certificates.

The partial acceptance test and system test can be performed country by country separately.

6. Connection at the border

Cable connection at the border between Armenia and Georgia has been completed.

7. Next coordination team meeting

Next coordination team meeting will be held in March 2003.

Signed in Yerevan on the 16th of December 2002

For Armenian Railways

Mr Vahagn Karaghezyan
First Vice Director of Armenian Railways

For Contractor

For Supervising Consultant

Mr Juergen Hellwig
General Project Manager

Ms Irja Koskela
Principal Supervisor