

C-O-N-F-I-D-E-N-T-I-A-L

30JUL74
(DATE)

MEMORANDUM FOR THE RECORD

SUBJECT: Opinion Request - Water Resources

Attached is self-explanatory material from the Department of State.
May we have your opinion by 16AUG74.

Please state degree of interest and whether we will receive requirements.

[Redacted Box]
(PAGE)

25X1A

COMMENTS:

DOI Waiver Letter In ERU FILE

- DISTRIBUTION: *reqs coming*
- OSI *no say / no comment*
- OER *no say / no comment*
- BESS *no say / no comment*
- ELLIE *no say / no comment*
- COMMERCE
- LES
- SB
- CRS
- AF
- ARMY
- NAVY
- DIA

*answered ✓
16 Sep 74*

Water Resources

E2 IMPDET
CL BY: 007622

Comment
STATINTL

RECORD
OF
U.S.-U.S.S.R. COORDINATORS MEETING ON
PROJECT III.2, "METHODS AND MEANS OF AUTOMATION
AND REMOTE CONTROL IN WATER RESOURCE SYSTEMS"

Washington, D. C., USA

June 28, 1974

I

In accordance with the U.S.-U.S.S.R. Agreement on Cooperation in the Fields of Science and Technology, signed May 24, 1972, and the Results of Discussions of the first meeting of the U.S.-U.S.S.R. Joint Working Group on Scientific and Technical Cooperation in the Field of Water Resources signed September 30, 1972, the meeting of U.S.-U.S.S.R. Coordinators was held in Denver, Colorado, on June 26-27, 1974, on Project III.2, "Methods and Means of Automation and Remote Control in Water Resource Systems."

Project coordinators who headed the U.S.-U.S.S.R. parties:

The U.S.S.R. Party:

O. A. Bilik
Director of the All-Union Scientific Research
Institute of Integrated Automation of
Reclamation Systems

The U.S. Party:

E. F. Sullivan
Assistant Commissioner - Resource Management
Bureau of Reclamation

The list of participants is attached (Appendix No. 1).

The following items were under discussion:

1. Coordination of the General Joint Program on the project for the period of cooperation
2. A detailed program to be executed during the first stage of cooperation for the period of 1974-76

3. Preliminary itinerary for the visit of U.S. Group to the U.S.S.R. in September 1974

II

1. As a result of exchange of opinions and information on the activities executed in each country in the field of automation of water resource systems, the two Parties have discussed forms and topics of cooperation and are considering as a basis the proposals by the U.S.S.R. side for a Joint Program of Works to be executed on the project (Appendix No. 2) during the period of cooperation, as well as a Detailed Program of Works to be carried out during the first stage of cooperation (Appendix No. 3). These programs may be subject to change or supplement after the visit of the U.S. side to the U.S.S.R.
2. The Parties have agreed upon the necessity of mutual preliminary coordination, in more suitable forms for every particular case, of stage priority of works to be executed according to Scientific and Technical Cooperation Program.
3. The preliminary itinerary for the visit of the U.S. Group to the U.S.S.R. in September 1974 has been discussed and agreed upon (Appendix No. 4). It will be corrected and specified as well as sent to the U.S. Party 1 month prior to the Group's departure for the U.S.S.R.
4. The U.S.S.R. Group has been acquainted with the work of some of the water economy organizations and firms, as well as of some technical solutions at a number of big projects and visited the following organizations and project sites:

Nebraska automated gated-pipe irrigation system
near Grand Island

Central Nebraska Public Power and Irrigation District
automated canal and supervisory control center

University of Nebraska North Platte Experimental
Station

Federal and state water resource features in Central
Valley Basin, California

California Aqueduct and Westlands Water District

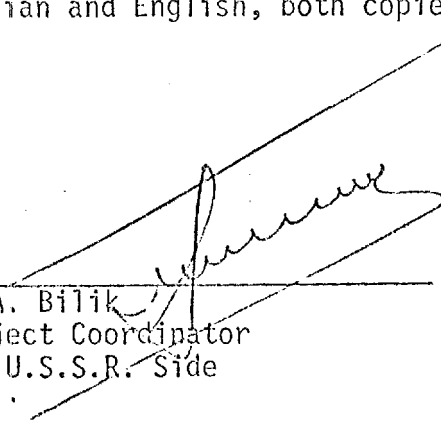
USDA/ARS automation research at Palo Verde
Irrigation District

Salt River Project


Bureau of Reclamation Engineering and Research
Center Laboratories and data processing
facilities

5. It is believed by the Coordinators that financing of all activities associated with the Joint Works provided by the program be realized in accordance with the decisions adopted by the U.S.-U.S.S.R. Joint Commission on Scientific and Technical Cooperation.
6. The Project Coordinators and the participants of this joint meeting state with satisfaction that the talks were fruitful and held in the atmosphere of friendship and mutual understanding and originated the beginning of personal contacts that will contribute to further development and extension of cooperation in the field of automation and remote control in water resource systems.

The present Memorandum was signed on June 28, 1974, in two copies, Russian and English, both copies being equally valid.



O. A. Bilik
Project Coordinator
The U.S.S.R. Side



E. F. Sullivan
Project Coordinator
The U.S. Side

June 16-27, 1974

Appendix No. 1

List of Participants at
Coordinator Meeting of U.S.-U.S.S.R. Sides
on
Project III.2, "Methods and Means of Automation
and Remote Control in Water Resource Systems"

U.S.S.R. Party

O. A. Bilik, Theme Coordinator
Director, All-Union Scientific Research Institute of
Integrated Automation of Reclamation Systems
Frunze 720052
Kirgiz

D. D. Koslov, Chief Specialist of Automatic and Power
Supply Department
"Sojuzvodproject"
Moscow

V. I. Kurotchenko, Chief of Technical Cybernetics Laboratory
KSSR Academy of Science
Institute of Automatics
Frunze

I. B. Khamadov, Chief of Operational Hydrometry and Hydraulic
Automatics with Sector A.C.S.
Middle Asia Research Institute of Irrigation named after
V. D. Jurin
Tashkent

U.S. Party

E. F. Sullivan, U.S. Project Coordinator
Assistant Commissioner - Resource Management
Bureau of Reclamation
Washington, D. C. 20240

Reid Teeples, Associate General Manager - Water
Salt River Valley Water Users Association
Post Office Box 1980
Phoenix, Arizona 85001

List of Participants - continued

U.S. Party

R. D. Dirmeyer, General Manager
Central Nebraska Public Power and Irrigation District
Holdrege, Nebraska 68949

Professor P. E. Fischbach
University of Nebraska
Room 214
Agricultural Engineering Building
Lincoln, Nebraska 68503

Leonard J. Erie
Agricultural Research Service
U.S. Department of Agriculture
Water Conservation Laboratory
4331 East Broadway
Phoenix, Arizona 85040

Charles A. Calhoun, Team Leader
Water Systems Automation
Division of Water Operation and Maintenance
Bureau of Reclamation
Engineering and Research Center
Denver, Colorado 80225

Program of USSR-US Working Group on Scientific and Technical Cooperation in the Field of Water Resources

Project III-2 "Methods and Means of Automation and Remote Control in Water Resource Systems"

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No.	Description	Activities at each item or phase	Excutor in the USSR	Excutor in the USA	Completion period	Expected Results
1	Design methods of automated systems to control technological processes in water projects including on-farm systems	Joint research on development and pilot operation of predetermined experimental projects.	VNIIKA reclamation; USSR Ministry of Land Reclamation and Water Management. Inst. of Automation, Kirghiz SSR Academy of Sciences	Footnote: The US side will provide the names of its excutors at a later time.	1980	Automated experiments projects; recommendations of design and operation
1.1	Analysis and selection of experimental projects	Agreement of experimental projects selected during visits of USSR-US specialists in USA (June 1974) and USSR (September 1974)	Coordinator		1974	Protocol
1.2	Scientific substantiation and preparation of assignment for design activities	Joint development of requirements to be met by control system, substantiation of assessment criteria, concepts, and algorithms for control, information and technical schemes, main requirements for program and technical facilities.	VNIIKA reclamation; Soyuzvooproekt, Inst. of Automation Kirghiz SSR Academy of Sciences		1975	Report or scientific substantiation, protocol on technical assignment approved

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1.3	Preparation of technical project and drawings	Agreement and exchange of technical information	Design institute	1976	Technical project and drawings
1.4	Construction, assembly, and check-up	Activities at experimental projects and exchange of consultations	Construction and assembly organizations of USSR Ministry of Land Reclamation and Water Management	1977	Acceptation Acts.
1.5	Provision of tests at experimental project	Joint team	VNIKA Reclamation;	1978	Report on tests provision
1.6	Recommendations on design and operation	Agreement and exchange of technical information	Soyuzvodproekt VNIKA Reclamation	1979	Protocol on recommendations approved
2	Complex of technical and program facilities for automated systems development to control technological processes in water projects, including on-farm systems	Joint research to develop and use new and existing complexes of technical and program facilities, their metrological provision and pilot operation	VNIKA Reclamation; Inst. of Automation, Kirghiz SSR Academy of Sciences; Gosstandard; Minpriior	1979	Complexes of technical facilities, and recommendations on their use

- 2.1 Specification of technological parameters to be measured, controlled, and regulated. Preparation of technical requirements on means for data collecting, transmitting, and automated processing; preparation of requirements on control facilities for technological processes. VNIKA reclamation; Soyuzvodproekt, Inst. of Automation, Kirghiz SSR Academy of Sciences 1975 Protocol on technical requirements approved
- 2.2 Analysis of existing control and management facilities, and local automated systems as well Exchange of technical information VNIKA reclamation; Soyuzvodproekt; SANIRI 1975 Catalogs of control and management facilities in industries
- 2.3 Development of design methods, manufacturing and delivery of pilot automated control facilities to experimental projects; retrological provision. Joint design and delivery to experimental projects. VNIKA reclamation; Inst. of Automation, Kirghiz SSR Academy of Sciences; Minprilor 1976 Act of pilot equipment tested
- 2.4 Operation of pilot automated facilities on experimental projects, recommendations on automated facilities application and utilization. Joint team VNIKA reclamation 1977-1978 Protocol on recommendations approved

1 2 3 4 5 6 7

Scientific report and data on metrological provision

1975-1976

Protocol of training program and glossary approved.

1976

Cosstandard, Mirpilot; VNIKA reclamation

VNIKA reclamation; NCM; TIIMSH Kingfiz SHI

Exchange of information, technical materials, devices

Exchange of training programs, manuals, preparation of English-Russian glossary.

3 Complex of technical facilities to provide scientific and metrological research necessary to develop automated control systems for technological processes in water projects

4 Personnel training for developing and operating automated control systems for technological processes in water projects

Footnote: The US side will provide the names of its executors at a later time.

PROGRAM OF WORKS

To be executed during the first stage of cooperation on Project III.2, "Methods and Means of Automation and Remote Control in Water Resource Systems"

Analysis and selection of experimental projects for mutual research, development and establishment of technical requirements for the automation means.

The Coordinators agreed that it would be expedient to create experimental irrigation systems in both countries.

The final objective for the creation of experimental projects for mutual research is to select and develop, as well as to test experimentally, a complex of technical and program means aimed at providing optimum control of technological processes in automatic irrigation systems of different types. This work should include the development of recommendations on design and operation of similar systems.

Taking into account various natural and design features, the projects must be typical from a technological point of view and located in a more typical and perspective area of farming under irrigation as well as include all the main technological processes.

For the purpose of implementation of works associated with the creation of experimental projects, both sides agreed with the following:

During the period of July-August 1974, the U.S.S.R. Party is to prepare the necessary technological and technical documentation on the selected project and to supply all the data to the U.S. Party as well as to elaborate on preliminary requirements on technological process in automatic control systems (T.P.A.C.S.). The U.S.S.R. Party will present the possibility for the U.S. Party to get acquainted with these projects in the field.

During the period of July-August 1974, the U.S. Party will prepare a list of organizations involved with production of water systems automation equipment.

The Coordinators agreed that the detailed program for the second stage (1976) would be developed during the September 1974 meeting in the U.S.S.R.

During the implementation of the second stage, it is expedient to arrange two meetings of the U.S.-U.S.S.R. Groups in 1975: the first one in September, USA to discuss and confirm the project of technical requirements on collecting, transmitting, and processing information, means and technological process control, as well as handing over the catalogs of the technical check and control means; the second one in October, U.S.S.R. to discuss and confirm the technical assignment to design the automatic reclamation systems.

Each Group should consist of four or five persons sent for a period of 14 days.

Appendix No. 4

Preliminary Program
of the
Visit to the U.S.S.R. of the American Delegation
of Specialists on the Topic,
"Methods and Means of Automation and Remote Control
in Water Resource Systems"

Organization: Bureau of Reclamation of the Department of the Interior,
USA

Basis: Program of Scientific and Technical Cooperation between the
U.S.S.R. and USA on Project III.2

Number of members of delegation - 6

Purpose of the visit of the delegation - Acquaintance with the test-
production project for joint research, as well as development and
confirmation of proposed program on fulfilling second stage of the
work on Project III.2.

The period of time will be 12 days (from 14 to 25 September 1974).

Date and day	Measures	Host organization
14 September - Saturday	Arrival in Moscow, Sheremet'ev Airport, Registration at hotel, rest.	RA-102
15 September - Sunday	Visit to the American Embassy. Get acquainted with the sights of Moscow.	
16 September - Monday	Reception of the American delegation and official presentation of the participants at the Minvodkhoz U.S.S.R. Visit to "Soyuzvodproekt" Center for design of water management projects.	V/O "Soyuzvodproekt"

Date and day	Measures	Host organization
17 September - Tuesday	Journey from Moscow to the city of Tashkent. Registration at hotel, rest.	Sredazgiprovodkhlpok, GlavSredazirsovkhozstroï
18 September - Wednesday	Visit to the Scientific Research and Design Center, "Sredazgiprovodkhlpok", SANIIRI.	GlavSredazirsovkhozstroï Sredazgiprovodkhlpok
19-20 September - Thursday and Friday	Visit to the water management projects of the Uzbek SSR. Guests of the administration of GlavSredazirsovkhozstroï.	GlavSredazirsovkhozstroï
21 September - Saturday	Journey to the city of Frunze. Free day. Seeing the sights of the city of Frunze.	VNIKAMS
22 September - Sunday	Visit to the water management projects of the Kirghiz SSR.	Minvodkhoz Kirghiz SSR
23 September - Monday	Visit to the Scientific Center, VNIKAMS. Meeting of the U.S.S.R. and U.S. Working Teams. Development and confirmation of proposed program for fulfilling second stage of the work in 1976. Agreement on the test-production project.	VNIKAMS
24 September - Tuesday	Flight from Frunze to Moscow.	VNIKAMS
25 September - Wednesday	Flight from Moscow to New York.	

Footnote: The itinerary will be revised as discussed in Denver to extend it 2 or 3 days.