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**REACH**

RESOURCES  
FOR CHILD  
HEALTH

**EMERGENCY CHILDHOOD IMMUNIZATION  
SUPPORT PROGRAM**

**TAJKISTAN**

**19 May 1992**



**EMERGENCY CHILDHOOD  
IMMUNIZATION SUPPORT PROGRAM  
TAJIKISTAN**

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**19 May 1992**

**Resources for Child Health Project  
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## **ACRONYMS**

<b>BCG</b>	<b>Bacillus, Calmette and Guerin Vaccine</b>
<b>DPT</b>	<b>Diphtheria, Pertussis, Tetanus Vaccine</b>
<b>EPI</b>	<b>Expanded Program on Immunization</b>
<b>FOP</b>	<b>Feldsher-Obstetrician Posts</b>
<b>MOH</b>	<b>Ministry of Health</b>
<b>OFDA</b>	<b>Office of Foreign Disaster Assistance</b>
<b>SES</b>	<b>Sanitary and Epidemiology Station</b>
<b>UNICEF</b>	<b>United Nations Children's Fund</b>
<b>UNIPAC</b>	<b>UNICEF Supply Division</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>WHO</b>	<b>World Health Organization</b>

## **INTRODUCTION**

Tadjikistan is the poorest of the newly independent Central Asian States. Economic adjustments including major rises in food prices were seen by the USAID Office of Foreign Disaster Assistance (OFDA) assessment teams, in visits earlier in 1992, as early warning signs of a malnutrition emergency in infants and young children. It was also reported that the program for the immunization of children was interrupted in 1991 due to the interruption of the supply of vaccines. While all un-immunized children are at risk from the vaccine preventable diseases, malnourished children are far more vulnerable to these diseases, and are far more at risk of disability and death as a result of these preventable diseases.

The USAID Office of Health and the Office of Foreign Disaster Assistance (OFDA) have begun to provide vaccines for common vaccine preventable diseases, the equipment to enable safe vaccine storage and transport, and the necessary injection equipment to provide safe immunization of children under two years of age for most of the year beginning in May 1992 for most of the Central Asian Republics of the former Soviet Union.

The supply of this vaccine and equipment was based on an assessment conducted in February and March 1992. The U.S. Department of Defense provided air transport for about 18 tons of vaccine and equipment for the initiative in Tadjikistan. Originally scheduled for arrival in Dushanbe, the Tadjikistan capital, on 7 May, the consignment actually arrived on 15 May 1992 on two C-141 aircraft.

Operation Provide Hope provided a team of two specialists to assist in the management of the flight arrival, cargo unloading, and flight departure. The REACH Project provided this consultant to make the necessary arrangements with the Ministry of Health of the Republic of Tadjikistan, to ensure safe storage and management of the vaccines, to assist the Ministry of Health in the preparation of their distribution plans, and to provide training in the new technologies being introduced through this initiative.

Unfortunately, these tasks were interrupted and delayed by continued civil unrest. During the recent disturbances, the OFDA flight cargo specialists departed the country, though they were replaced by a new team before the flight arrival. This consultant remained in country to be able to assist in the assessment of the situation and the resumption of the flight schedule.

## **PART 1: THE DELIVERY OF EMERGENCY IMMUNIZATION SUPPLIES**

A summary of the current situation, the arrangements made, and the tasks completed follows in this section.

1. **FLIGHT ARRIVAL:** Arrangements were agreed with the Director of Civil Aviation Headquarters for flight arrival, parking, and cargo unloading on the Dushanbe airport apron. The provision of lighting for night arrival, if needed, was agreed. A two ton fork lift was made available for unloading. Access to the aircraft parking area for the Ministry of Health vehicles and personnel and for the media was granted. The provision of fuel and aircraft ground services was agreed.
2. **PUBLIC RELATIONS:** The U.S. Ambassador Designate and the Minister of Health agreed to the filming or video taping of the arrival, storage, and use of these donated supplies and equipment. The local press was notified, and the BBC World Service covered the arrival and receipt of the emergency immunization supplies and equipment. The local newspapers and television carried the story of the arrival of the supplies. A video tape was made of the arrival and unloading of the aircraft.
3. **THE CONSIGNMENT:** Originally scheduled for arrival on 7 May, the consignment actually arrived on 15 May 1992 on two C-141 aircraft. The first aircraft carried 9 cargo pallets for Tadjikistan and 3 pallets for Uzbekistan, while the second aircraft carried a full load of 13 cargo pallets for Tadjikistan. No cargo manifest was provided, though a packing list for the UNIPAC supply items was available. Estimates of other items were provided by REACH. The OFDA cargo team maintained a count of items (boxes or cartons) as they were transferred from the aircraft pallets to the MOH trucks (See Annex 4).
4. **CUSTOMS CLEARANCE:** The U.S. Embassy obtained the agreement of the customs authorities to the duty free import of these humanitarian supplies and equipment.
5. **CARGO TRANSPORT:** The Ministry of Health provided four 15 ton trucks for the transport of the vaccines and equipment from the airport to the MOH Republican Sanitary and Epidemiological Station storage facilities. At least 25 laborers were provided by the MOH to unload the aircraft and to move the supplies to the MOH Stores. The MOH had stated that even in the event of civil unrest the MOH will be able to transfer the humanitarian supplies and equipment to their storage facilities.
6. **STORAGE:** This consultant visited the Republican Sanitary and Epidemiological Station (SES) storage facilities. This storage facility is more than adequate to receive the consignment, and were better than expected. Of the nine cold rooms for vaccine storage (0 to +8°C) visited, all but one was operating within the safe vaccine storage temperature range. The storage capacity is sufficient for the quantity of vaccine being supplied. No -20°C storage equipment for the storage of Oral Polio vaccine exists. The freezers being provided by USAID will be able to fill this role, though temporary storage in a cold room was required while the freezers are being brought into operation.

7. **RECEIVING AND INSPECTION:** On the receipt of the vaccines at the Republican Sanitary and Epidemiological Station storage facilities the vaccines were stored in cold rooms. As this was done, a sample of vaccines and the vaccine time and temperature exposure indicators (3MWHO Vaccine Monitor Marker Cards) were inspected to verify that the vaccines have not damaged by heat during their transport from the manufacturers to the SES warehouse. A vaccine receiving report will be completed and forwarded to REACH for distribution and action (See Annex 3). All vaccines received showed no evidence of exposure to temperatures higher than +8°C and are suitable for use. 8,100 syringes (6400 of 1cc BCG & 1700 of 3 cc) were contaminated by rain water during loading in the U.S. A count of syringe cartons indicated a shortfall of approximately 50,000 out of 1.3 million syringes expected. One Ice Pack Freezer had a damaged power cord. All other equipment was received in good condition. No ice packs for use in the vaccine transport boxes were received except for 4,050 spare ice packs. A list of the items and quantities that were expected is appended as Annex 1.

The inspection and agreed proper storage of the vaccines, as well as the installation of the freezers necessary for polio and measles vaccine storage, was delayed due to the lack of a clear decision by the Commission for the Reception of Humanitarian Assistance to allow proper action by Ministry of Health personnel. The concern of the MOH staff and of the Commission appeared to be that of control of property and its distribution rather than appropriate vaccine and supply management. The Commission was recently established, and included the Chief of Police of the Bureau for the Prevention of Theft of State Property. The Commission failed to meet on Monday 18 May, some 3 days after the arrival of the supplies, to inspect and agree to the MOH distribution plans. It took until the afternoon of 19 May to agree and certify the quantities of supplies and equipment received, a prerequisite to the Commission taking action.

The other cause for the delay in the Commission's and the MOH's action, in the writer's opinion, was the need for the MOH to appear to be neutral in the current period of civil unrest, and to be seen to be fair in its allocation of supplies to each region of the country. It should be noted that by delaying the unpacking and most appropriate storage of the vaccines, some heat exposure of some of the vaccines (DPT & BCG) was seen - though if action was taken as promised before 22 May, little significant harm to the vaccines will occur. This will be followed up by the REACH Project consultant, Mr. Carl Hasselblad, who will remain in the Central Asian Republics through early June.

8. **DISTRIBUTION:** A distribution plan has been prepared by the Chief of the Republican Sanitary and Epidemiological Service. While expected to take four days, *once begun*, the distribution appears likely to be delayed in some areas due to the recent heavy rains, with consequential mud slides and flooding, as well as damage to some health facilities and roads.

Three freezers and three ice pack freezers will be retained by the Republican Sanitary and Epidemiological Station, with the other five of each being distributed to the five Oblasts (regions)

The large cold boxes (vaccine transport boxes) will be used for vaccine distribution from the Republican Sanitary and Epidemiological Station (SES) to Oblasts and from Oblast SESs to

health facilities. The cold boxes will have property identification numbers painted on them before distribution begins.

Vaccines will be distributed to all facilities providing immunization services by the Oblast (district) Sanitary and Epidemiological Stations. REACH supplied Cyrillic vaccine carton labels will be put on individual vaccine cartons prior to distribution.

The ice packs received in the consignment will, in the absence of an expected 30,000 units, be used to ensure safe transport to the six Oblasts, and down the system to the health facilities. The 4,050 ice packs received are insufficient to enable an effective cold chain to the lower levels of the system.

One third (1 syringe for each vaccine dose) of the US supplied disposable syringes will be distributed to the facilities providing immunization services, with the remaining two thirds to be held in reserve in the SES warehouse in Dushanbe for distribution with the planned September 1992 vaccine shipment.

The small cold boxes will be distributed to immunization outlets throughout the republic. The small cold boxes will have property identification numbers painted on them before distribution begins.

Sterilizers and their associated reusable syringe kits will be supplied to selected Feldsher-Obstetrician Posts (health posts).

9. **TRAINING:** Training is needed, at all levels throughout the country, in the use of the sterilizer-syringe kits, the ice pack freezers, the vaccine transport cold boxes, and the small cold boxes. A list of facilities, equipment, and materials for a practical training course was prepared. The arrangements and the assignment of participants were made by the Chief of the Republican Sanitary and Epidemiological Service.

A training course for staff of the Republican Sanitary and Epidemiological Station, Dushanbe based health workers, and for the staff from Dushanbe Oblast was held on 19 May in Dushanbe. This practical course covered vaccine storage, transport, the use of the U.S. provided equipment, injection equipment sterilization, and in discussions, helped resolve practical and theoretical problems in immunization program operations. It was envisioned by MOH officials that the 45 participants in this training course will train future users of this equipment.

10. **IMMUNIZATION:** The vaccination of children under two years of age will be carried out by the regular staff of health facilities throughout Tadjikistan.
11. **IMMUNIZATION REPORTING:** The Ministry of Health has been requested to provide information on the immunization work performed using these US donated supplies. In the final few days of this assignment, the Chief of the Republican Sanitary and Epidemiological Service had become more open in the provision of immunization data. This will be followed up by the REACH Project consultant remaining in the region.

12. **TECHNICAL ISSUES:** Some progress has been made on critical vaccine management issues. The importance of the storage of Oral Polio and Measles vaccines in freezers at -20°C or colder at the Republican and Oblast levels was well accepted, particularly as USAID provided the appropriate equipment. The need to discard opened Oral Polio vaccine at the end of the day (loss of stability and risk of contamination) may not be so clearly accepted.

While the need for ice packs in vaccine transport and the appropriate cold chain management procedures are accepted in principle, the **current practices, emphasizing property control, are in direct conflict with safe vaccine transport.** *Before the emergency provision of cold boxes, and ice packs, vaccines were transported in boxes made with 1/8 inch hardboard sheet on wooden frames, and 'insulated' with about 1.5 inches thickness of raw cotton padding.* These boxes were wrapped in string, with a sealing wax seal to identify unauthorized opening. While the cotton will reduce breakage, it will not significantly reduce the heat exposure of temperature sensitive vaccines. Some Oblasts claim to use refrigerated vehicles to transport these boxes at the receiving end of the chain (this is both risky and problematical at best).

It should be noted that the Tajikistan immunization policy is complicated, requires long intervals between vaccine doses, late completion (after the age of greatest risk), and uses multiple doses of most vaccines throughout the life of the child. Our targeting of emergency immunization support for children under 2 years of age still accepts late completion of the primary immunization series. The formulation and development of immunization policy does not appear to have been a local function related to local disease patterns. Possibly the immunization policy reflects frequent vaccine or cold chain failure.

Following the recent floods, with thousands homeless and in encampments on high ground, the urgent need for an expanded measles immunization effort in the disaster area to prevent a likely measles outbreak was poorly understood by MOH officials. In 1991 there was a serious outbreak of poliomyelitis, though immunization policy does not reflect the need for early completion of immunization.

During the training course held in Dushanbe on 19 May 1992, MOH officials and health workers raised an issue of concern regarding the sterilization of injection equipment. It was stated that **it is never the practice in Tadjikistan health facilities to mix used BCG syringes with syringes used for any other injection** (in autoclaves or steam sterilizers). The steam sterilizer systems provided under this emergency assistance were clearly seen by health workers as offering both safety and cost advantages.

13. **CONSTRAINTS:** The Ministry of Health and its Republican Sanitary and Epidemiological Service and all personnel met by this consultant have provided the highest cooperation and hospitality. The uncertainty of the specific arrival date and time has forced more contingency planning than would have been desirable. The civil unrest, the demonstrations, road blocks on all sides, and the shooting and killing has made sustained effort and communications difficult and at times impossible. Because of this unstable situation staff absences and government office closures were frequent. The limited time (and safety) available for field visits has been an additional constraint.

While the cooperation of the authorities at senior Ministry of Health level was excellent, MOH middle level personnel, were for the most part, not entirely cooperative and open, though this appeared to be improving. An element of government secrecy was encountered. It may be that this reflected the local political situation, and only improved with the realization of the generosity of the USAID humanitarian assistance.

14. **FOLLOW-UP:** Mr. Carl Hasselblad, will remain in the Central Asian Republics for several additional weeks to provide follow-up and any additional training and needs assessment required. Mr. Hasselblad was introduced to both MOH and U.S. Embassy officials who assured their full cooperation.

## **PART 2: AN ASSESSMENT OF THE ADEQUACY OF THE SUPPLIES PROVIDED**

**VACCINES:** The provision of vaccines in the May 1992 and the planned September 1992 deliveries appears to be sufficient for the immunization of children under 2 years of age against the EPI vaccine preventable diseases. As polio vaccine production has resumed in Russia, it is expected that some additional vaccines will be provided by this manufacturer (a small quantity has already been received). UNICEF has recently provided 150,000 doses of measles vaccine. These additional vaccines may be used to provide booster doses in older children in accordance with MOH policy.

**ICE PACKS:** In order to protect the vaccines supplied, ice packs are used in cold boxes for transport and for daily use, and in refrigerators to stabilize storage temperatures. Based on the equipment supplied a total of 34,200 ice packs are required to help ensure the maintenance of vaccine potency in the immunization delivery system. Only 4,050 were actually received - 11% of the actual requirement. Urgent action is needed to procure and deliver an additional 30,150 ice packs of the same specification as those already delivered (UNIPAC E5/9). See Annex 2.

**DISPOSABLE SYRINGES:** The disposable syringes delivered appear to be adequate for the expected number of immunization injections to be performed. A delivery shortfall of approximately 50,000 syringes occurred. This is unlikely to seriously affect immunization program operations.

**REUSABLE SYRINGES:** Sterilizable plastic syringes and 150 sterilizer kits were supplied. They are expected to be used at some of the more than 2,000 rural health posts (Feldsher-Obstetrician Posts). The syringes supplied are estimated to be insufficient for an entire year's operation. It is estimated that an additional 180 boxes of ten 0.05 ml. syringes and 720 boxes of ten 0.5 ml. syringes are required. See Annex 2.

**FREEZERS:** A sufficient number of vaccine storage freezers were supplied for safe polio and measles vaccine storage at the Republic (central) and Oblast (regional) levels. A sufficient quantity of ice pack freezers were supplied to support safe vaccine transport from the Central and Oblast levels of the vaccine delivery system.

**COLD BOXES:** A sufficient quantity of large (68.3 liter) cold boxes were supplied for safe vaccine transport from Central to Oblast levels of the vaccine delivery system. Only approximately 50% of the need for small (4.4 liter) cold boxes were supplied to support safe health facility level and outreach immunization activity and vaccine transport. An additional requirement needs to be estimated. The number of facilities remaining to be supplied remains unclear - various figures for the number of facilities at outreach level have been reported, but have not been confirmed.

**THERMOMETERS:** Combined with existing MOH stocks in use, a sufficient supply of thermometers for vaccine temperature monitoring were provided.

### **PART 3: AN INFORMAL ASSESSMENT OF THE COLD CHAIN SYSTEM**

While there was little opportunity for a field level assessment, it was clear that the management of the vaccine cold chain at the Republican level and in the transport system was extremely fragile and weak. The principles of good vaccine management while understood in principle, were not effectively translated into good practice.

Vaccines were packed for distribution in small or large wood and hardboard (compressed wood fiber sheet) boxes, lined with raw cotton. Sent by road or air, no real protection against exposure to ambient high temperatures, which may destroy vaccines, existed until the USAID equipment was delivered. Vaccine supplies awaiting delivery to Oblasts were found to sit in cool but not vaccine safe storage areas for days before shipment.

Temperature monitoring of vaccine storage was casual, rather than regular and routine.

Vaccine storage equipment maintenance is poor, though far better than in a nearby republic.

It is clear that further training in the vaccine cold chain and vaccine management is required at all levels of the system.

## PART 4: RECOMMENDATIONS

1. As a matter of immediate urgency, 30,150 of E5/09 ice packs should be supplied to Tajikistan to ensure safe vaccine transport and storage.
2. Additional sterilizable plastic syringes should be provided with the planned September 1992 vaccine delivery to enable the use of the USAID supplied sterilizers to be continued to be used through the period of vaccine supply.
3. A formal assessment of the vaccine cold chain and the immunization delivery system should be agreed with the Government of Tajikistan and then conducted. Training based on the findings of the formal assessment should be conducted. These activities should be considered as a way of facilitating the transition from emergency support to a more normal functioning and self sufficient immunization program in Tadjikistan. Technical assistance should be provided to assist in this completion phase of emergency support.

Difficulties occurred in the monitoring, verification, inspection, and receipt of the very large quantity of materials (about 280 M<sup>3</sup> - 9,000 cu. ft.) in this consignment.

4. For any future deliveries, a cargo manifest detailing the items, quantities, and their packaging, should be provided in advance of arrival.
5. No more than a single C-141 cargo load should arrive in a single day to avoid system overload and confusion.
6. In the event of similarly large deliveries, additional U.S. monitoring personnel would be required.
7. Ministry of Health officials and health workers at all levels have limited knowledge of good cold chain practices, and almost no awareness of recent developments in immunization program and vaccine cold chain management. Immunization policies and practices reflect isolation from the international developments in public health. Materials, modules, and guidelines developed by the World Health Organization, REACH, and other international and national organizations should be provided to the MOH. **While Russian translations of these materials would be desirable, but would take too long to produce, their supply in English editions is recommended. Local translations could be made by the MOH.**

## CONTACTS

All Ministry of Health discussions were held with the following MOH officers:

Mr. Kabilsov, Anatoly, Georghiovich  
Deputy Minister of Health, Sanitary and Epidemiological Service  
Telephone: 27-69-89

Mr. Jumaiev, Rustam  
Chief, Sanitary and Epidemiological Service  
Telephone: 27-74-73 (office), 36-58-54 (home)

Mr. Pavlovich  
National Epidemiologist  
Telephone: 27-71-63

Mr. Bandisha, Sha Ismatullah  
Chief, Republican Sanitary and Epidemiological Station

Mr. Tonchin  
Deputy Chief, Republican Sanitary and Epidemiological Station

For flight arrival arrangements discussions were held with:

Mr. Gaidar, Valery  
Chief, Tadjik Civil Aviation Headquarters  
Telephone: 22-70-52 (office), 29-85-45 and 27-98-32 (home)

The video tape of the flight arrival was made by:

Mr. Farhat Abdullaiev, Supervising Director  
Khaoma Film Studio, Dushanbe  
Tel: 23-41-57 (home)

The friendly support and assistance of the Embassy of the United States of America was invaluable and greatly appreciated.

Mr. Stan Escudero, Ambassador Designate.  
Mr. Edmund McWilliams, First Secretary  
Mrs. Alice Wells, Second Secretary  
Mr. Douglas Robbins, General Services Officer (TDY)  
Ms. Ann Bodine, Administrative Officer

The OPERATION PROVIDE HOPE II officers who helped on the ground and in Moscow, (and without whom this assignment would have been unmanageable) were:

Major Charles B. Haver, United States Army  
Jeff Farnquest, United States Army

My interpreter in Tajikistan has been

Mr. Said Kalondar  
Telephone: 37-65-24 (home) 31-42-66 (neighbor's home)

ANNEX 1

CIS - CENTRAL ASIAN COUNTRIES VACCINE AND EQUIPMENT DELIVERIES MAY 1992  
 QUANTITIES, DOSES, AND STORAGE VOLUME ESTIMATES VOLUMES IN M<sup>3</sup> AND CC

ITEMS	DOSE	VOL/DOSE	QUANTITY	
			TAJIKISTAN	VOLUME
MEASLES	10	2.5	121,200	0.30
MEASLES DILUENT	10	2.5	121,200	0.30
BCG	10	5.13	121,200	0.62
DPT	10	4.4	324,800	1.43
OPV	10	2	270,700	0.54
<b>TOTAL</b>				<b>3.20</b>

1 CUBIC METER = 35CU FT		
ITEMS	QUANTITY	
	TAJIKISTAN	VOLUME
SYRINGE KIT A	1,000,000	57.14
SYRINGE KIT B	300,000	17.14
<b>TOTAL</b>		<b>74.29</b>

REF	M <sup>3</sup> VOLUME	ITEMS	QUANTITY	
			TAJIKISTAN	VOLUME
E9/8	0.47	STERILIZER	120	56.40
E9/9	0.05	STERILIZER	30	1.50
E8/07	0.004	SYRINGE KIT A	240	0.96
E8/08	0.006	SYRINGE KIT B	60	0.36
E10/4	0.0086	WATER PAD	150	1.29
<b>TOTAL</b>				<b>60.51</b>

REF	M <sup>3</sup> VOLUME	ITEMS	QUANTITY	
			TAJIKISTAN	VOLUME
500 LT	1.33	FREEZER	8	10.64
E3/26	0.65	ICEPACK FREEZER	8	5.20
E4/73	0.04	COLD BOX 1	1,050	42.00
E4/29	0.15	COLD BOX 2	100	15.00
E5/09	0.001	ICEPACK	4,080	4.08
E6/27	0.0234	THERMOMETER	1,575	36.86
<b>TOTAL</b>				<b>113.78</b>

ANNEX 2

<b>ICE PACK REQUIREMENTS FOR IMMEDIATE USE</b>					
<b>RESERVE FACTOR= 3</b>					
TYPE	UNICEF REF	ICE PACK LOAD/BOX	UNICEF REF	QUANTITY BOX SUPPLIED	TOTAL REQ'RD
COLD BOX LARGE	E4/29	30	E5/9	100	9,000
COLD BOX SMALL	E4/73	8	E5/9	1050	25,200
<b>TOTAL=</b>					<b>34,200</b>
<b>QUANTITY OF E5/9 SUPPLIED IN FIRST SHIPMENT=</b>					<b>4,050</b>
<b>QUANTITY REQUIRED IMMEDIATELY=</b>					<b>30,150</b>
<b>STERILIZABLE PLASTIC SYRINGE REQUIREMENTS FOR LATE 1992</b>					
	STERILIZER FELDSHERS	STERILIZATIONS DAYS / YEAR	STERILIZER LOAD		
			0.05 ML	0.5 ML	5 ML
SINGLE RACK	120	250	10	30	2
DOUBLE RACK	30	250	20	60	4
SINGLE RACK	KIT A	LOAD*STERILIZ/100=	25	75	5
DOUBLE RACK	KIT B	LOAD*STERILIZ/100=	50	150	10
SINGLE RACK	KIT A *2	KIT CONTENTS*2	20	40	4
DOUBLE RACK	KIT B *2	KIT CONTENTS*2	40	80	8
SINGLE RACK	KIT A	USE-SUPPLY=	-5	-35	-1
DOUBLE RACK	KIT B	USE-SUPPLY=	-10	-70	-2
SINGLE RACK	ADDNL SYRINGE REQUIREMENT=		600	4200	120
DOUBLE RACK	ADDNL SYRINGE REQUIREMENT=		300	2100	60
<b>TOTAL ADDITIONAL SYRINGE REQUIREMENT=</b>			<b>900</b>	<b>6300</b>	<b>180</b>
			<b>0.05 ML</b>	<b>0.5 ML</b>	<b>5 ML</b>
<p><b>NOTES:</b>                      ESTIMATED STERILIZATIONS/ SYRINGE= 100                      ESTIMATED STERILIZATIONS/YEAR=250</p> <p><b>INITIAL SUPPLY:</b>                      KIT A= 2 PER STERILIZER                      KIT B= 2 PER STERILIZER</p>			<p><b>SYRINGE REQUIREMENT SUMMARY</b>                      IN BOXES OF TEN SYRINGES:                      BASED ON EQUAL DISTRIBUTION</p> <p style="text-align: center;">0.05MI= 120 BOXES + 60 BOXES                      (ONE ADDITIONAL BOX OF 10 PER                      STERILIZER RACK)</p> <p style="text-align: center;">0.5 MI= 720 BOXES OF 10                      (FOUR ADDITIONAL BOXES OF 10 PER                      STERILIZER RACK)</p> <p style="text-align: center;">5.0 MI= 180 ADDITIONALSYRINGES                      REQUIRED</p>		

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ANNEX 3



WORLD HEALTH ORGANIZATION  
Expanded Programme on Immunization  
**VACCINE ARRIVAL REPORT**



1. **Flight Details** Date of report: 20-May 92  
 Airport of origin: Rien Main, Frankfurt Germany  
 Scheduled stopover(s) en route: None  
 Day of week, date and time of arrival: Friday 15 May 1992 01:00am  
 Airliner(s) and flight number(s): USAAF C-141

2. **Vaccine**

Vaccine types: OPV, DPT, BCG, Measles Manufacturer: SKGRI, Institute Merieux

Vaccine	No. of vials	Doses per vial	Batch number(s)	Expiry date(s)
OPV	27,200	10		4/94
BCG	8,000	20		4/94
DPT	32,500	10		9/94
Measles	12,650	10		3/94

Diluent

BCG-V  Measles

Is water resistant glue used for the vaccine labels? YES NO ?

3. **Shipping Procedures**

Date advance telex sent: yes By whom: State Department  
 To which address or telex number: USEmbass For attention of: Ambassador  
 Who received message at immunization project: Deputy Chief, RCES  
 On what date and time: 13 May 1992 Text (or attached copy): \_\_\_\_\_

Were details of telex adequate? No

Describe any differences between information on telex and actual arrival details:

Answer the above questions on an attached sheet for additional advance telexes which were sent.

ANNEX 3  
Continued

VACCINE ARRIVAL REPORT

Does the airway bill state:

- consignee's name, address, and telephone number Yes No
- telephone consignee immediately upon arrival Yes No
- store vaccine at 0°C to -8°C (32°F to 46°F) Yes No
- Do Not Freeze (if DPT, DT, Td, or TT vaccine) Yes No

Were other airway bill details correct and adequate? Yes No

If not, describe: No Airwaybill provided

Were packages properly labelled using EPI "VACCINE RUSH" tape or stickers? Yes No

If not was there clear warning about:

- package contains vaccines Yes No
- need to keep refrigerated Yes No
- need for urgent handling Yes No
- Do Not Freeze (if DPT, DT or TT vaccine) Yes No

What was the state of the packaging on arrival? Good

For DPT, BCG, Polio and Measles vaccines:

Were correct language cold chain monitors included? Yes No

Vaccine type:	OPV	Measles	DPT	BCG
No. monitors in shipment:	85	110	100	75
No. showing index of:				
A	Nil	Nil	2	1
B	↓	↓	Nil	Nil
C				
A-D			↓	↓
B-D				
C+D				

For DT, or TT: Were blue shipping indicators included? Yes No

- Vaccine type: \_\_\_\_\_
- No. monitors in shipment: \_\_\_\_\_
- No. showing grey (good): \_\_\_\_\_
- No. showing black (bad): \_\_\_\_\_

At what time were the final vials placed into Project's cold stores? 13:00 on 15 May.

Comments and suggestions for future improvement: Staff Need more understanding of Need to keep vaccines cold

ANNEX 4

DOCUMENT OF RECEIPT

We, the undersigned, confirm the transfer of the following items provided through humanitarian aid to Tajikistan:

	<u>DESCRIPTION</u>	<u>UNIT</u>	<u>QUANTITY</u>
Vaccines:	Polio	doses	<u>272,000</u>
	DPT	doses	<u>325,000</u>
	BCG	doses	<u>162,000</u>
	Measles	doses	<u>126,500</u>
Portable Ice Chests:	Small ice chests	4/box	<u>249</u>
	Large ice chests	1/box	<u>94</u>
Disposable syringes		100/box	<u>12,000</u>

Refrigerators/freezers, ice packs, re-usable syringes (kits A & B), sterilizers (kits A & B), and spare parts according to the attached list.

We recognize that these supplies are for the sole use by the government of Tajikistan for vaccinations of its residents. We understand that these supplies may not be sold or transferred from under the control of the Tajik Ministry of Health. We have agreed to permit officials of the U.S. Embassy in Dushanbe, or its designated representatives, to visit the facilities where these supplies are stored in order to check their condition and use.

[Signature]  
(signature)

HAYER CHARLES B.  
(last name, first, middle)

MAJOR U.S. ARMY OSIA  
(rank, title)

OSIA "PROVIDE HOPE"  
(agency, institution)

[Signature]  
(signature)



РАИСМАТУМОВ БАНДИШО  
(last name, first, middle)

ГЛАВНЫЙ ВРАЧ РЕСПУБЛИКАНСКОЙ  
(rank, title)

СЭС МИНИСТЕРСТВА ЗДРАВООХРАНЕНИЯ  
(agency, institution)  
РЕСПУБЛИКИ ТАДЖИКИСТАН

ANNEX 4  
Continued

АКТ ПОЛУЧЕНИЯ

Мы нижеподписавшиеся подтверждаем передачу следующих запасов по оказанию гуманитарной помощи Таджикистану:

<u>ОПИСАНИЕ</u>	<u>ЕДИНИЦА</u>	<u>КОЛИЧЕСТВО</u>
Вакцины: Полио	дозы	<u>272,000</u>
АКДС	дозы	<u>325,000</u>
БСДж	дозы	<u>162,000</u>
Корь	дозы	<u>126,500</u>
«колд-бокс» маленькие	короб.	<u>249</u>
«колд-бокс» большие	короб.	<u>94</u>
Одноразовые шприцы	100/короб.	<u>12,000</u>

Холодильники/морозильники, ледовые элементы, много-разовые шприцы (набор А и Б), стерилизаторы (набор А и Б), и запчасти согласно прилагаемому списку.

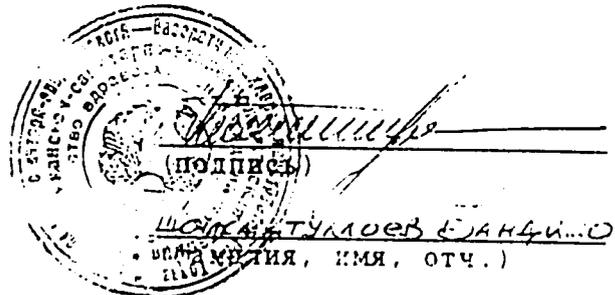
Мы признаем, что эти запасы предназначены исключительно для использования правительством Таджикистана для вакцинации его жителей. Мы понимаем, что эти запасы не подлежат продаже или передаче из-под контроля Министерства здравоохранения Таджикистана. Мы договорились разрешить должностным лицам посольства США в Душанбе или его назначенным представителям, посетить места хранения этих запасов, для того, чтобы проверить их состояние и пользование.

(Charles) Hays СН  
(подпись)

HAYS, CHARLES  
(фамилия, имя, отч.)

MAJOR, U.S. ARMY  
(звание, должность)

OSIA, "PROVIDE HOPE"  
(адрес, учреждение)



ШОМАНТУМОВ БАНДИМО  
(фамилия, имя, отч.)

Главный врач республиканской  
(звание, должность)

СЭС Министерства здравоохранения  
(агентство, учреждение)

Республики Таджикистан