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**REACH**

RESOURCES  
FOR CHILD  
HEALTH

**EMERGENCY CHILDHOOD  
IMMUNIZATION SUPPORT PROGRAM**

**KYRGYZSTAN**

**26 April to 5 June 1992**



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SUPPORT PROGRAM  
KYRGYZSTAN**

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**26 April to 5 June 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>DT</b>	<b>Diphtheria and Tetanus Vaccine</b>
<b>EPI</b>	<b>Expanded Program on Immunization</b>
<b>FOP</b>	<b>Feldsher Obstetrician (Health) Post</b>
<b>FSU</b>	<b>Former Soviet Union</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>USAID</b>	<b>United States Agency for International Development</b>
<b>WHO</b>	<b>World Health Organization</b>

## **I. EXECUTIVE SUMMARY**

Funds have been allocated by the United States Agency for International Development (USAID) for emergency assistance to the childhood immunization service of the newly independent Republic of Kyrgyzstan. Implementation of this assistance is the responsibility of two USAID offices--the Office of Foreign Disaster Assistance and the Bureau of Research and Development, Office of Health. The objective of this effort is to ensure that a one year cohort of children receives the primary series of immunizations for protection against the common vaccine-preventable diseases.

Assistance in the first phase (May 1992) of operation took two forms:

- Quick delivery of much needed immunization equipment, supply and vaccines
- Provision of an immunization program specialist to assist receipt of the new equipment and to determine additional emergency support required, if any

On 13 May, 1992 all ordered immunization equipment and supply, excepting icepacks, arrived in Kyrgyzstan by US Airforce aircraft. The material was unloaded, distributed and successfully introduced into the on-going Ministry of Health child immunization service.

Further emergency requirements in support of the immunization services were identified. These include the need for:

- Improving regional vaccine storage (0-8 c.) facilities
- Improving district vaccine storage (both 0-8 and -20 c.)
- Providing vaccine storage equipment to selected service facilities
- Increasing the number of cold boxes to ensure vaccine-safe transport to all locations
- Providing vaccine carriers for outreach and point-of-use activities
- Ensuring sufficient supply of icepacks to cover the shortage from the May shipment plus spares for the September shipment
- Providing sufficient sterilizers (and reusable syringes/needles) to permit safe immunization at all appropriate service points
- Ensuring sufficient vaccines to cover the expected year-end shortages (selected antigens)

In addition to material requirements, assistance is also needed in the area of vaccine production and transport of vaccine from producers to republics, immunization policy revision, cold chain management and vaccine procurement.

## **II. BACKGROUND**

The Republic of Kyrgyzstan, one of the newly independent Central Asian Republics, covers an area of 199,000 square kilometers and has a population of 4.4 million. Some 54% of the population is Kyrgyz, 22% Russian, 13% Uzbek and 11% other. With only 1.4% of its population having a monthly per capita income above 300 rubles in 1990, Kyrgyzstan ranks third poorest of all republics of the former Soviet Union (FSU).

Under direction of USAID, a child-immunization program specialist visited Kyrgyzstan from 15-20 March 1992. After reviewing child immunization activities, facilities and support infrastructure, the consultant recommended urgent assistance to the Ministry of Health (MOH) for support of immunization activities (see Robert Steinglass, "Report of Visit: Emergency Childhood Immunization Support Program," 15-20 March 1992).

As a result, Kyrgyzstan became one of four Central Asian Republics selected by USAID for emergency immunization program support to begin early May 1992. Implementation of this assistance is the joint responsibility of the Office of Foreign Disaster Assistance (OFDA) and the Bureau of Research and Development, Office of Health.

The form of assistance for the first phase was to be:

1. Provision of vaccines, syringes and needles, sterilization equipment and vaccine storage/transport equipment
2. Provision of an immunization program specialist to:
  - A. Assist the MOH to receive and organize the use of the donated supplies and equipment
  - B. Identify additional emergency program support requirements, if any.

### **III. PLACES VISITED**

Under point 2. above, the writer visited Kyrgyzstan from 27 April to 14 May 1992 and on an intermittent basis thereafter (to 5 June 1992). During the course of these visits, the May 1992 shipment of emergency immunization supplies and equipment was received/distributed and recommendations for follow-up emergency assistance developed. Places visited were:

#### **BISHKEK**

- Ministry of Health
- Republican SES (Sanitary and Epidemiology Station)
- Bishkek City SES
- National Medical Warehouse and temporary -20 c. cold storage

#### **CHUISKAYA REGION (Oblast)**

- Chuisкая Region SES
- Chuisкая District (Rayon) SES
- Chuisкая District Urban Children's Polyclinic
- Iskra Rural Ambulatory Clinic
- Kalininsky District SES
- Kalininsky District Hospital
- Alamedinsky District SES
- Panfilovsky District SES

**TALASS REGION (Oblast)**

- Talass Region SES
- Talass District SES
- Dolon Rural Ambulatory Clinic
- Ab Jar Feldsher Obstetrician Post (FOP)

**IV. ACTIVITIES AND FINDINGS**

**A. MAY 1992 SHIPMENT**

**A1. Receipt of Shipment**

On 28 April 1992 the writer informed the MOH of the expected arrival, on or about 6 May, of an emergency immunization shipment. The MOH formed a "working group" to organize the unloading, publicity, storage, distribution and systematic introduction of the materials.

On 1 May the USA Embassy received notice of the 4 May arrival of a three person "Operation Provide Hope" team to assist shipment receipt. The writer was requested to arrange airport reception, transport and MOH contact for the team. The team arrived as scheduled and established communications with EUCOM and Rhein Mein MAC operations (Germany). Final preparations were concluded. Over a two week period eight different shipment (aircraft) arrival dates were received and communicated to the MOH (see also Lt. Col. Fowler, Report of Mission--Annex 1).

In the event, a US Airforce C-141 aircraft landed on 13 May at 1019 hours with some 15 tons of immunization equipment and supplies aboard. By 1400 hours the 13 pallets of material were unloaded manually. USAF crew and local troops worked smoothly together to move cargo directly from aircraft to trucks.

Vaccines were placed in a refrigerated (-20 c.) truck and taken to a specially cleaned -20 c. cold storage room at the Bishkek meat processing plant. Vaccine containers were opened, vaccine counted, vaccine monitors examined and filled out (NOTE: vaccine monitors came in the "English" rather than in the expected "Russian" language version). All vaccine containers still had dry ice and all vaccine monitor windows were "white" indicating safe transport temperatures.

The other supplies and equipment were trucked to the National Medical Warehouse where they were stacked by kind and re-counted by MOH and Operation Provide Hope personnel. A final count was made the next day with the following results:

**MAY 1992 EMERGENCY IMMUNIZATION SUPPORT PROGRAM SHIPMENT**  
**(KYRGYZSTAN)**

<u>ITEM</u>	<u>EXPECTED</u>	<u>RECEIVED</u>	<u>DISCREPANCY</u>
1. Freezers	8	8	-----
2. Icepack Freezers	8	8	-----
3. Cold Boxes (20 liter) *	75	80	+5 (no icepacks)
4. Cold Boxes (4.4 liter) *	800	800	-- (no icepacks)
5. Sterilizers A (single)	200	200	-----
6. Sterilizers B (double)	50	50	-----
7. Reusable Syringe Kit A	400	400	-----
8. Reusable Syringe Kit B	100	100	-----
9. Disposable Syringes (boxes)	1,250	1,310	+60 (21 usable)**
10. Thermometers	800	800	-----
11. Hardwater Pads	250	250	-----
12. Spare Parts (boxes)	?	2	?
13. Measles Vaccine plus diluent	9,700 v.	9,700 v.	-----
14. Polio Vaccine plus droppers	21,830 v.	21,830 v.	-----

**NOTES:**

- \* The cold boxes (both sizes) came without their complement of icepacks. A total of 13,200 icepacks were missing.
- \*\* Out of 1,310 boxes of disposable syringes received, 39 boxes were extensively damaged by water apparently while loading at Dover AFB. A number of other boxes were partially damaged. Nevertheless, the number of generally undamaged boxes received exceeded the expected number of boxes by 21 (1,300 -39 = 1,271 which is 21 more boxes than expected).

**A2. Material Distribution and Organization for Use**

The MOH in discussion with the writer developed a supply and equipment distribution plan based on administrative units, population and already available equipment (see Annex 2). The plan includes the reserve, at the Republican Sanitary and Epidemiology Station (SES), of 120,000 disposable syringes for use with the expected September 1992 shipment of USA donated measles vaccine. All items were issued according to the distribution list and by signed "hand receipt." USAID emblems were given to regional officials to affix to the freezers and icepack freezers (Note: emblems were not affixed prior to distribution as it would not have been wise to open and weaken shipping crates before equipment loading and transport to the regions). Distribution and organization for use took place in the following manner:

- Immediate distribution of freezer icepack freezers, cold boxes, disposable syringes/needles to the Republican SES and each regional SES
- Preparation of a 25 page directive and technical guide explaining the use of vaccines, vaccine monitors, cold chain equipment, sterilizers and reusable syringe kits
- Training of MOH trainers in use of the new equipment and supplies (both cold chain and sterilization)
- (Once the Republican SES freezers were functioning) transfer of the vaccine from the temporary -20 c. storage to the Republican SES
- Training seminar in Bishkek for regional officials and staff by MOH trainers using the directives and technical guidelines prepared earlier
- (As word of successful installation of freezers and icepack freezers at regional level is telephoned in) the beginning distribution of appropriate amounts of vaccine via cold boxes to each region through the normal vaccine distribution system
- Beginning use of the USA donated vaccines

As of 3 June 1992, all steps described above had been accomplished in the Republic of Kyrgyzstan.

### A3. Use and Use-Monitoring of Donated Vaccines

The planning for, and monitoring of, immunization coverage is uniformly and routinely carried out at each administrative level. When a child is born it receives BCG immunization and an immunization form. If the child is not immunized for some reason an immunization form is anyway started. This form is kept at the responsible service point and all subsequent immunizations are entered by type and date. These forms are kept on file according to the next month of scheduled immunization. From these forms are every month listed, by name (in a register), the children who must come for immunization. If for some reason a child does not come or is not given immunization, his/her form is placed in the file for the coming month and closely followed for attendance. It is these forms (plus estimated annual births) that are the basis of the annual immunization plan and basis for vaccine request.

Each month the service point reports to the district SES the number of immunizations given. These are recorded (at district level) on a monitoring form against the expected number of annual immunizations to be given by that facility. On the form there is a column for percent achievement by month and quarter--some districts monitor facility achievement by month and all districts visited monitor percent achievement by quarter. At the same time as a service point submits the number of immunizations performed for the previous month, it also submits its request for vaccines to cover the next month list of children (minus vaccine on hand). In turn the districts send coverage achievement and vaccine requests to the regional level where monitoring of district achievement is done minimally on a quarterly basis.

Based on this tightly managed vaccine distribution and immunization reporting system, we can calculate that the donated vaccines in Kyrgyzstan (May shipment) will provide complete primary immunization to approximately the following number of children:

- Measles immunization (one dose) . . . . . 68,500 children
- Polio immunization (three doses) . . . . . 65,500 children

It is less easy to predict by when each donated vaccine will have been completely used--this for two reasons. First, as there has been a chronic shortage of measles vaccine, there is a backlog of children requiring primary immunization (thus ensuring early use). On the other hand, small amounts of measles vaccine and normal amounts of polio vaccine are presently being received from FSU suppliers. Since the USA donated vaccines have longer expiration dates and are being stored under ideal conditions, they will be used to fill each period of shortage. Thus the donated vaccines could be used up in three to five months or may last longer depending on FSU supplies (see section B1. below).

#### A4. Publicity

Prior to the arrival of the shipment, the MOH placed a story in the local press regarding the imminent arrival of USA provided immunization equipment and supply.

An MOH-arranged video-camera team filmed the aircraft arrival, receipt ceremony (Deputy Minister of Health, USA Ambassador Designate, aircraft crew, etc.), unloading and storage operations. Clips from this film were shown on the evening television news broadcast.

A second film was organized through a local documentary film producer. This film is intended to show various stages in the use of the donated supplies and equipment--from distribution to immunization. Both films have been brought to the USA.

## **B. FURTHER EMERGENCY IMMUNIZATION PROGRAM SUPPORT**

### B1. Vaccine

The supply of vaccine for Kyrgyzstan remains uncertain. Prorated receipt of vaccines through the end of May 1992 should amount to about 40% of vaccine needed/requested for the year. This percent can be compared below to actual receipt from FSU suppliers:

VACCINE REQUEST, CONTRACT AND RECEIPT TO DATE (MAY 1992)

<u>ANTIGEN</u>	<u>UNIT</u>	<u>DOSES</u> <u>PER UNIT</u>	<u>MOH</u> <u>REQUEST</u>	<u>SUPPLIER</u> <u>CONTRACT</u>	<u>RECEIPT FROM FSU</u> <u>SUPPLIERS TO 5/92</u>	
					<u>NUMBER</u>	<u>PERCENT</u>
Measles	Doses	--	330,000	66,000	10,000	(3%)
Polio	Doses	--	1,320,000	1,320,000	395,000	(30%)
BCG	Sets	20	50,000	42,000	20,800	(42%)
BCG-M	Sets	20	14,000	14,000	2,000	(14%)
DPT	Liters	2000	360	360	90	(25%)
DT	Liters	2000	130	130	60	(46%)

Judging from the difference between "request" and "contract" and actual prorated delivery compared to the requested amount, definitely measles vaccine and perhaps BCG vaccine will be in short supply by early 1993 if not before.

**Measles:** the May 1992 USA shipment of measles vaccine (97,000 doses) and an earlier UNICEF shipment of 55,000 doses have temporarily relieved the situation. The planned USA shipment of another 97,000 doses of measles vaccine in September will permit immunization activities to continue. By late 1992 or early 1993 (depending on the 1991 backlog of children and FSU supplies) measles vaccine will again be out of stock.

**BCG:** the year-end stock position of BCG vaccine is less easy to predict. Given the difference between "request" and "contract" and a 14% prorated receipt to date of BCG-M, this vaccine may be in short supply by year's end.

**Polio, DPT and DT:** these vaccines are presently available in sufficient quantity and FSU suppliers appear to believe they can provide amounts requested. With the May receipt of 218,000 doses of USA donated polio vaccine, the planned delivery of another 218,000 doses of polio vaccine in September 1992 could result in over-stocking.

**RECOMMENDATION:**

1.1 An additional 43,000 doses of measles vaccine (and perhaps more) should be added to the presently planned September 1992 shipment of 97,000 doses (for a total September shipment of at least 140,000 doses of measles vaccine).

1.2 Close contact should be maintained with the Kyrgyzstan MOH through July 1992 to determine whether additional quantities of BCG vaccine need to be ordered for September delivery.

1.3 If present trends continue (follow through July), cancel the planned polio vaccine shipment for September 1992.

**Note:** All vaccines should be delivered with vaccine monitors (one per 3000 doses) and care taken to ensure that the monitors are written in the "Russian" language.

## **B2. Syringes and Needles**

MOH officials are prepared to use steam sterilizers and reusable syringes at all service points if necessary but would prefer to limit their use to service outlets other than the most basic health service point (the Feldsher Obstetrician Post or FOP). Such a policy would mean a reduction in disposable syringe use-rates allowing for available disposables to be used at FOPs where staff are somewhat less qualified than staff at clinics and hospitals.

The May 1992 shipment included sterilizers and reusable syringe kits sufficient to cover approximately 60% of the non-FOP immunization service points--eg., rural ambulatory clinics, rural hospitals, central district hospitals and urban children's polyclinics.

### ***RECOMMENDATION:***

2.1 An additional 194 single rack steam sterilizers, with two syringe/needle kits for each sterilizer, should be provided.

2.2 A quantity of replacement reusable syringes, sufficient for one year's use, should also be supplied for all sterilizer kits.

## **B3. Protection of Vaccines--Cold Chain**

The May shipment of cold chain equipment had a major impact on protection of viral vaccines at republican and regional levels. It also provided safe vaccine transport conditions between the republican level and districts and between districts and almost 60% of the immunization sites.

Much remains to be done on an emergency basis to secure the complete cold chain for donated vaccines and to ensure that vaccines do not have to be rushed through the system (used quickly and thus for less vulnerable age groups) because of sub-standard storage, transport and use conditions at district and service levels. Critical weaknesses that remain in the system are:

- Regional cold stores (0-8 c.) are antiquated, often out of order and generally do not maintain appropriate temperatures
- Districts have no -20 c. storage capability and thus viral vaccines are routinely exposed to storage at 0-8 c. temperatures for far longer than the WHO recommended period of not more than five weeks.
- District 0-8 c. storage in antiquated domestic-type refrigerators which are not suitable for vaccine storage

- Over 9% of the basic immunization sites have no refrigerator (100 sites) or have a refrigerator which is beyond repair (21 locations)
- Forty percent of the basic immunization sites either do not have or have only inappropriate insulated boxes for vaccine transport
- None of the facilities have "point-of-use" containers or vaccine carriers appropriate for outreach activities--outreach activities are supposed to be carried out at cooperative farms and herding stations
- Not only was there an acute shortage of icepacks in the system, but the May shipment of cold boxes came without their necessary complement of icepacks making the use of many of the donated boxes virtually impossible.

**RECOMMENDATION:**

3.1 Provision of 14 large vaccine refrigerators for regional 0-8 c. storage (two for each region).

3.2 Provision of 56 small vaccine freezers for district SES--Vestfrost E3/27 type with spare parts.

3.3 Provision of 56 small vaccine refrigerators for district SES--Vestfrost E3/67 type with spare parts.

3.4 Provision of 106 very small vaccine refrigerators for facilities that have electricity but which have no present vaccine storage capacity--Vestfrost E3/75 type with spare parts.

3.5 Provision of 544 small cold boxes (4.4 liter) to complete supply begun in May 1992--Igloo E4/73 with appropriate immunization-type icepacks.

3.6 Supply of 930 vaccine carriers (one for each FOP) for outreach and point-of-use work--Polyfoam E4/19 with icepacks.

3.7 Supply of 27,410 icepacks to replace those missing from the May shipment and to supplement the order under points 3.5 and 3.6 above--22,760 of type E5/16 plus 4,650 of type E5/02.

3.8 Provision of a quantity of temperature monitoring devices

**B4. Vaccine Production & Transport to the Republics--Technical Assistance**

With the end of first phase (May) emergency assistance, which in terms of vaccine supply essentially bought the child immunization service a few months reprieve, the most critical issues facing the Kyrgyzstan program are the future stock of immunization supplies (vaccines, syringes and needles) plus the top and bottom of the cold chain. Section B3 above addresses the needs at the bottom of the cold chain (district and service levels).

At the top of the cold chain, no one at republic level is able to predict whether FSU vaccine production will continue, will be available in sufficient quantity and/or will be of controlled and acceptable quality. It follows that neither the republic or a donor can well plan future vaccine procurement let alone depend on their planning.

In addition, FSU vaccine producers (and controlling Institutes) have issued directives on how to handle vaccines which are different from practices recommended by WHO for vaccines produced elsewhere. In a system where vaccines are coming from both FSU and non-FSU producers there is an urgent need to standardize vaccine handling procedures.

Finally, the transport of vaccines from FSU producers to republic, in ordinary cardboard and wood boxes (without cooling of any kind or protection of the toxoids from freezing), undermines whatever is done to improve vaccine handling (the cold chain) at the republic level and below.

#### ***RECOMMENDATION:***

4.1 The earliest possible systematic review and assistance to vaccine production facilities in the FSU is needed. The aim would be to establish predictable and sufficient supply, ensure quality control and develop single-standard vaccine handling/use guidelines. It should also assist, as a matter of urgency, development of adequate cold storage and cold transport capabilities at producer level.

4.2 If the review (in 4.1 above) results in a determination that FSU vaccine supplies would remain for some time insufficient to meet all vaccine requirements, there is an urgent need to assist republics to establish dependable and affordable alternative supply mechanisms (perhaps through UNICEF).

#### **B5. Immunization Program Policy and Guidelines--Technical Assistance**

The Kyrgyzstan immunization effort benefits from having exceptionally capable and committed officers and staff at each functional level. They are open, forthright and extremely easy to work with. There appears to be a genuine readiness to review and, if proper, revise present program policies and practices. MOH officials themselves point to two difficulties which they wish to address:

- the denial of immunization to too many children because of an elaborate contraindication policy
- the conflicting guidelines for handling FSU and non-FSU produced vaccines as regards storage times and temperature, time of use before disposal, wastage issues, etc.

**RECOMMENDATION:**

5.1 Urgent efforts are required to make available in the Russian language technical and research publications on immunization issues. Relevant WHO/EPI publications, training materials and a revised "EPI Essentials" manual should be translated and made available in quantity.

5.2 Once selected research and technical materials are translated, a working seminar led by experts in the field of immunology, immunization schedules and indication/contraindications should be held in Bishkek (the capital of Kyrgyzstan). Leading MOH and Institute specialists in immunology, immunization and paediatrics would be called to review and recommend new immunization policy guidelines.

5.3 Once the differences between FSU and non-FSU produced vaccines ( B4. above) are sorted out and technical materials translated (see 5.1 above), a workshop in vaccine handling/cold chain issues should be held. This could take the form of an "inter-country" workshop and should be facilitated by a cold chain technical specialist.

**V. FOLLOW-UP ACTION REQUIRED**

A. Order and dispatch emergency supply and equipment needs (see recommendations under IV. B1, B2 and B3 above) to arrive in Kyrgyzstan not later than mid-September 1992.

B. Select and translate into the Russian language immunization program technical and research publications.

C1. Determine FSU vaccine production status (facility by facility--present and mid-term) and assist strengthening of production, quality control and vaccine transport procedures.

C2. If FSU vaccine production is expected to remain uncertain, assist the country to develop alternative supply sources and procurement mechanisms.

D. Organize in-country seminar to review (and as necessary revise) immunization policy and guidelines--provide technical support.

E. Organize inter-country cold chain/vaccine handling workshop--provide technical support.

**Note:** In all activities work closely with WHO, UNICEF and other concerned parties.

ANNEX 1

MISSION REPORT: PROVIDE HOPE II (VACCINE SHIPMENTS)

BISHKEK, KYRGYSTAN

TEAM FOWLER: LT COL JAMES FOWLER, TEAM CHIEF  
STUART RAMSEY, LINGUIST  
LEE CLAUSEN, LINGUIST

REF: HQ OSIA 010303Z MAY 92 (Atch 1)

1. We were notified of this mission 28 April 92 while conducting PROVIDE HOPE II follow-up actions in Minsk, Byelorus. The mission to Bishkek involved receipt and transport of a vaccine shipment (including related medical supplies and equipment) to the Kyrgystan national pharmaceutical warehouse.
2. Upon arriving Moscow on 1 May, returning from Byelorus, we visited the PROVIDE HOPE coordinating office attached to the US Embassy. A general briefing from Mr Tom Michaels included the inclusive dates of our deployment (4-10 May), initial points of contact in Bishkek, and mission objectives. Those objectives were to prepare for the arrival of over 16 tons of syringes/needles, cold chain equipment, and vaccine; and to subsequently receive the air delivered shipment and transport to a medical storage facility. The vaccines would have to be immediately refrigerated. The planned date of arrival, relayed to us from EUCOM, was between 7 and 8 May. Indications were that a single C-141 would be required to transport the cargo to Bishkek, as would be the case for each of the other three locations receiving similar shipments (Tashkent, Dushanbe, and Ashkabad). Detailed requirements would be discussed in Bishkek.
3. We departed Moscow at 1445L on 4 May and arrived Bishkek at 2030L that day. We were met by Dr. Hasselblad, the on-site US public health coordinator; Ms Liudmila Vasilevna Roshkova, Immunization Programme Specialist; Ms Samsonova Tatjana Grigozievna, Ministry of Health coordinator for the team; Mr. Victor Feliksovich Portnykh, Director for Immunizations; and Ms Norgul, Hasselblad's local interpreter. Transportation was provided to the hotel Pishpeq and check-in was uneventful.
4. Satellite communications with all agencies preparing the PROVIDE HOPE shipment was crucial to assure mission success. Initial contact with EUCOM and the MAC coordinating office (J-4) that night revealed nothing additional on the shipment being prepared at Dover. Subsequent discussions with Tom Michaels, on the initial check-in, reiterated the importance of immediate refrigeration of the vaccine once on station. Regardless of the upcoming holidays (9-11 May), Ministry personnel would need to ensure that the shipment is received and housed appropriately should it be delayed beyond 8 May.

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5. Meetings with Embassy and Ministry of Health officials were scheduled and our plans were discussed. Subsequent meetings with warehouse and airfield managers followed. We presented our suggested offload plans and solicited assistance in facilitating the aircraft download. At his time we believed a C-141 would transport the shipment, that no more than 8 pallets would be involved, and the aircrew would transit (no more than 4 hours of ground time) with no fuel requirements.

6. Mr. Bohdan Dmytrewycz, First Secretary of the Embassy, assured us the aircrew would be assisted by Embassy personnel while we directed offload of the vaccine shipment. I met briefly with the Charge, Mr. Ed Hurwitz, the following day to update our status and that of the vaccine shipment.

7. Meetings with the Ministry of Health and airport officials were encouraging. The primary points of contact were: Mr. Boris Shapiro, First Deputy Minister of Health; Dr. Hasselblad; Ms (Dr) Svetlana Firsova, Chief, State Sanitary and Epidemiological Department (S&E Dept); Ms. Roshkova; Ms Grigozievna; Mr. Portnykh; Vladimir Genis, Deputy Chief, S&E Department; Mr. Georgi Petrovich Ilyan, Airfield Manager, and several airfield logistical personnel. The results of these meetings were:

- a. The vaccines are earmarked for 7 distribution stations throughout the country. Our shipment (Atch 2) will consist of only polio and measles vaccines accompanied by the cold chain equipment as well as syringes/needles. Once the shipment arrives, it will initially be warehoused in two locations: syringes/needles and cold chain equipment in the main pharmaceutical warehouse, and the vaccines in a nearby meat storage warehouse (NOTE: the pharmaceutical warehouse was unable to accommodate refrigeration at minus 20 degrees celsius needed for the vaccines).
- b. Once the cold chain equipment is operating, the vaccines will be moved to the pharmaceutical warehouse.
- c. Distribution to the 7 major locations will be within two days after the vaccine arrives in Bishkek. The cold chain equipment with vaccines will move first followed shortly by the syringes/needles. With the holidays upon them, I foresee the final distribution to the end-user (beyond the 7 distribution stations) to take at least a week, possible two. Dr. Hasselblad has the responsibility to monitor the distribution and immunization program.
- d. We would have one forklift (1 ton) available for offload with a possibility of two. The forklifts are small and in various states of disrepair. One good forklift (2 ton) exists at the warehouse.

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- e. We will have three trucks available -- one cold truck to transport the vaccines, and two 40-foot open bed trucks to transport the remaining equipment and supplies. This should be sufficient.
  - f. We will have available more than enough troop labor to assist in the aircraft offload and truck onload.
  - g. Fuel is available at \$300 per metric ton (NOTE: special price for humanitarian assistance flights). All other fees are waived. Based upon current planning (from EUCOM), the flight will originate from Rhein Mein and fly direct to Bishkek, nearly 8 hours, requiring a fuel onload of approximately 50,000 pounds (25 tons): \$7500. EUCOM was informed.
  - h. Access to the airfield is planned for one hour prior to aircraft arrival. The logistics manager assured us that all the equipment, trucks, and manpower would be available one hour prior to arrival.
8. Subsequent calls to EUCOM, MAC Operations, and Tom Michaels indicated that:
- a. EUCOM first believed a C-141 would deliver the cargo during the noon hour of 7 May. This had been relayed to Bishkek officials during our meetings. However, Rhein Mein operations states that this information was incorrect, confused with the mission to Tashkent, and that a contracted DC-8 would deliver the shipment -- date and time then unknown. A DC-8 cargo bay requires a 13-14 foot lift capability which is not available at the Bishkek airport. The mission (now MSN 5023-03 vice 5023-04) was cancelled, then postponed, and finally coordinated through the Joint Staff and TRANSCOM for a planned arrival time at Bishkek of 08/1700L May. The concern became one of offloading manually -- TRANSCOM and the Joint Staff had to be assured that the heaviest load would be manageable by the troops. Discussions with TRANSCOM, HQ OSIA, EUCOM, and Rhein Mein personnel reiterated the capability to manually offload the shipment. Dr. Hasselblad assisted in identifying the heaviest and bulkiest piece of equipment -- the cold storage freezers weigh approximately 240 pounds each. Mr. Tom Michaels along with Ministry personnel were notified of the changes. Embassy personnel were updated relating to the status.
  - b. Frankfurt was experiencing some problems due to the worker strikes in Germany. Several of the equipment and vaccine shipments from other nations were being delivered by commercial air to Frankfurt to match up with the cargo from the US. EUCOM indicated the strike would be resolved and the airport back to normal operations by Wednesday morning (6 May).

- c. The supplies and equipment warehoused at Dover had yet to depart for Germany as of the morning of 6 May. TRANSCOM plans to pick up this cargo with the contracted three DC-8s, transport to Rhein Mein to match up with the remaining vaccines and supplies, then continue to Bishkek (081100Z May) as well as the other two locations. The revised date and time was forwarded to the Ministry of Health and the US Embassy. Ministry personnel indicated that the changes would present no problems. They are investigating the capability to access the DC-8 cargo bay with other types of equipment.
  - d. MAC operations at Rhein Mein (061800L) confirmed the arrival of Mission 5023-03 as 081100Z May (081700L May). A contracted Evergreen DC-8 was scheduled to arrive at Rhein Mein at 071300Z May with 14 pallets of cargo. MAC operations will offload those pallets destined for other locations, unload additional equipment and vaccine for Bishkek, and prepare the aircraft for a 080400Z May departure direct. Embassy and Ministry personnel informed.
  - e. Upon arrival, we anticipate the requirement to break down the pallets and manually remove the supplies and equipment onto the trucks. Some supplies will be loaded in the belly storage compartment for easy removal. Ministry and airport officials indicated they may be able to use an airline food carriage lift to reach the cargo bay. We intend to investigate this alternative.
  - f. The crew is expected to remain overnight. The Embassy has arranged for accommodations, but the crew will bear the costs. We have rubles available should they be required. Crew compliment, departure time, and fuel requirements are unknown at this time. Fuel costs will be \$7500 for 25 metric tons of jet fuel. Mr. Tom Michaels and the Embassy informed.
9. 8 May 1992: Significant changes have occurred. We were unable to validate the information during the night, yet received the following this morning:
- a. Mission 5023-03, a contracted DC-8, would not arrive Bishkek today. Though the airport received notice this morning of an inbound DC-8, this too was incorrect (possibly a prearranged DIP clearance that had not been cancelled). Rhein Mein MAC operations confirmed that no DC-8 was inbound from Frankfurt. Ministry personnel were notified of the changes and have released all offloading/airfield personnel from the commitment.
  - b. It became evident during the night that MAC operations was relaying incorrect information to the team, was unaware of the status of our DC-8 (subsequently found to be on another mission unrelated to PROVIDE HOPE and was not available to unload the equipment and supplies at Dover), and was unaware of the inadequate cargo capability of the standard DC-8 to unload Bishkek's complete shipment at Dover.

- c. Contacts with EUCOM and Rhein Mein operations this morning (08/0900L Bishkek) revealed the following guidance from the Joint Staff (J-4): The DC-8 contract to deliver shipments to Bishkek and Ashkabad was cancelled. A C-5 would again be tasked to pick up the shipments at Dover and deliver all to Rhein Mein on the morning of 10 May; C-141 aircraft would then be used to deliver the respective shipments, departing 11 May (tentative) or 12 May (latest). The shipment to Dushanbe would be postponed until the political situation improved.
- d. Preliminary information indicates a fuel onload requirement of 40,000 pounds (18 metric tons) costing nearly \$5500. Aircrew layover is a possibility and the Embassy will require advanced notice in order to arrange transportation and billeting. MAC operations and the USDAO in Moscow should relay this information to the Embassy via cable (RI RUDKBK).
- e. Team arrangements were changed to accommodate the planned arrival. Embassy and Tom Michaels notified.

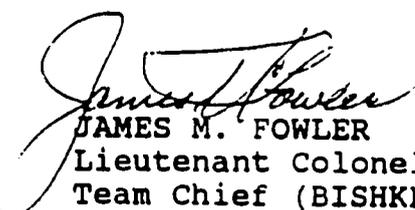
10. 9 May 1992: More changes regarding MSN 5023-03 were passed to the Embassy via cable. None of this information was passed to the team through the PROVIDE HOPE channels (i.e. Rhen Mein MAC operations, EUCOM). 21AF 090030Z May 92 (Atch 3), given to us by Mr. Hurwitz, states that a C-141 is scheduled to arrive Bishkek via Incirlik, Turkey at 130415Z May (1015L) and depart 130745Z May (1345L). This is a two day slip from the information we received yesterday and is contrary to the flight plans originally passed to us (i.e. direct flight with an overnight stay). However, upon contact with Rhein Mein and EUCOM, the information was verified. Tom Michaels and OSIA informed. Reservations will be again changed on Monday to allow us to depart Bishkek on 14 May and depart Moscow 15/16 May.

11. Based upon information received from Ashkabad relating their shipment, we arranged with the Ministry of Health for additional trucks. Three 40 foot bed trucks were requested along with six smaller sized vehicles, as well as the refrigerated truck to transport the vaccines. Ashkabad's shipment did not arrive upon wooden skids, had to be offloaded manually (individual boxes) and then placed onto the trucks without the benefit of being stacked. We again requested that a 10-ton forklift be available. A meeting with the warehouse Director, Arstunbaev Asen Usupbtkovich, and several of his employees was unproductive: the forklift which could have assisted in the aircraft offload would not be made available. It appeared, however, that this forklift was the only one located at the warehouse and would be required for their daily supply/equipment movements. The warehouse storage appeared adequate.

12. The aircraft arrived Bishkek at 130420Z May (1020L) with 13 pallets of cargo (35,420 pounds) (Atch 4). Neither a manifest nor a transfer receipt accompanied the shipment. We used Dr. Hasselblad's record of the planned shipment, reflecting the amount of syringes/needles, cold chain equipment and vaccine (16.4 tons), for customs and cargo accountability. The cargo received appeared to

represent that which was planned. Offload was uneventful, though conducted using manual labor. Some of the syringe/needle boxes were damaged while awaiting shipment at Dover (as reported by a MAC operations aircrew member), primarily due to the shipment being exposed to rain. We saw several boxes with broken syringes/needles. The trucks (9 were available: 4 long beds, 4 short beds, and a refrigerated truck) were loaded as planned. Dr. Hasselblad verified that all the vaccines were loaded then allowed the truck to transport these to the designated cold storage warehouse. He visited the warehouse once the total offload was complete. A team member escorted the initial load of supplies and equipment to the pharmaceutical warehouse and then maintained vigilance throughout the offloading. The aircraft required 36 metric tons (77,000 pounds) of fuel on its return to Rhein Mein (direct). Aircraft departed at 131000Z May (5+40 ground time) with a 131900Z planned arrival at Rhein Mein. The offload took approximately three and a half hours.

13. Copies of this final report were given to the Bishkek Embassy First Secretary, Dr. Hasselblad, and Tom Michaels in Moscow. The team departed Bishkek at 0800L, 14 May and will arrive Moscow at 1130L that same day. Departure from Moscow is planned for 0825L, 15 or 16 May 92, on Delta 61 direct to Washington DC.

  
JAMES M. FOWLER  
Lieutenant Colonel, USAF  
Team Chief (BISHKEK)

Attachments

1. HQ OSIA 010303Z MAY 92
2. List of vaccines, equipment, and supplies (received from Dr. Hasselblad)
3. 21AF/DOCZ 090030Z May 92 (Aircraft clearance request)
4. Pallet configuration

cc:

AMEmbassy, Bishkek

Dr. Hasselblad

PROVIDE HOPE Coordinating Office, AMEMB Moscow

ANNEX: 2

FIRST PHASE (MAY 1992) DISTRIBUTION PLAN: USA DONATED IMMUNIZATION  
EQUIPMENT--REPUBLIC OF KYRGYZSTAN

ITEM	REGIONS							REP. SES	TOTAL
	CHUI- SKAYA	BISH- KEK	TA- LASS	ISSY- KUL	NAR- YAN	JALAL- ABAD	OSH- KAYA		
-Freezers	*	1	1	1	1	1	1	2	8
-Icepack Freezers	*	1	1	1	1	1	1	2	8
-Cold Box (20 lt)	11	5	6	8	7	16	15	12	80
-Cold Box (4.4 lt)	70	-	47	123	90	186	284	-	800
-Disp. Syringes (in thousands)	56	56	56	112	56	224	320	120	1000
-Icepacks (spare)	210	48	168	432	312	672	560	198	3000
-Sterilizer A.	36	2	12	24	22	35	67	2	200
-Sterilizer B.	9	2	2	6	5	8	16	2	50
-Syringe Kit A.	72	4	24	48	44	70	134	4	400
-Syringe Kit B.	18	4	4	12	10	16	32	4	100
-Thermometers	70	20	50	110	90	170	270	20	800

\* NOTE: The freezer and icepack freezer for Chuiskaya Region are set up at the Republican SES. Chuiskaya Region is the region directly surrounding Bishkek City and it has no place for separate stores--it keeps its vaccine separate at the Republican SES in its own freezer.

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