Headquarters
United States Forces Korea
Unit #15237
APO AP 96205-5237

United States Forces Korea
Regulation 40-3

29 September 2010

Medical Services

KOREA AREA JOINT BLOOD PROGRAM

***This regulation supersedes USFK Regulation 40-3, dated 20 May 1999.**

FOR THE COMMANDING GENERAL:

JOSEPH F. FIL, JR.
Lieutenant General, USA
Chief of Staff

OFFICIAL:

GARRIE BARNES
Chief, Publications and
Records Management

Summary. This regulation implements the United States (U.S.) Military Blood Program in Korea as outlined in Department of Defense (DoD) Instruction 6480.4, USCINCPACINST 6530.2J and Joint Publication (JP) 4-02.1. This regulation prescribes the responsibilities, policies, and procedures for the operation and management of the Korea Area Joint Blood Program (KAJBP) in meeting armistice and contingency blood requirements for the United States Forces Korea (USFK).

Summary of Change. This document has been substantially changed. A full review of its contents is required.

Applicability.

a. This regulation applies to all USFK hospitals, medical treatment facilities (MTFs), and blood bank elements in Korea or on offshore naval vessels that have the ability to procure, store, or distribute blood and blood components.

b. This regulation applies to all USFK installation, garrison and base commanders.

Supplementation. Supplementation of this regulation and issuance of command and local forms is prohibited unless prior approval is obtained from USFK Surgeon (FKSG-BO), Unit #15237, APO AP 96205-5237.

Forms. USFK forms are available at http://www.usfk.mil/usfk/.

Records Management. Records created as a result of processes prescribed by this regulation must be identified, maintained, and disposed of according to AR 25-400-2. Records titles and descriptions are available on the Army Records Management System website: https://www.arims.army.mil.

Internal controls. This regulation does not contain management control procedures or checklists.

Suggested Improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) to the USFK Surgeon (FKSG-BO), Unit #15237, APO AP 96205-5237.

Distribution. Electronic Media Only (EMO).

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1. Purpose

The purpose of this regulation is to implement the United States (U.S.) Military Blood Program in Korea as outlined in Department of Defense (DoD) Instruction 6480.4, USCINCPACINST 6530.2J and Joint Publication (JP) Publication 4-02.1. This regulation prescribes the responsibilities, policies, and procedures for the operation and management of the Korea Area Joint Blood Program (KAJBP) in meeting armistice and contingency blood requirements for the United States Forces Korea (USFK).

2. References

References are listed in Appendix A.

3. Explanation of Abbreviations and Terms

Abbreviations and terms used in this regulation are explained in the glossary.

4. Responsibilities

a. Armistice

(1) The Commander, USFK, will -

(a) Facilitate conducting joint blood drives in the Korean Theater of Operations, in order to assist the PACOM (Pacific Command) Joint Blood Program Office in meeting peacetime or armistice blood needs.

(b) Appoint, in writing, a qualified officer to direct the Korea Area Joint Blood Program.

(c) Provide the Korea Area Joint Blood Program Officer (KAJBPO) travel and per diem allowances to perform blood program functions to include inspections of Blood Support Detachments, Blood Supply Units/ Blood Product Depots (BSUs/BPDs), Blood Transshipment Centers (BTCs), required DoD Armed Services Blood Program Meetings, and blood program exercises. As necessary, coordinate alternative funding sources to support KAJBPO augmentees and deploying Blood Supply Units (BSUs) participating in exercises.

(2) Commander, 7th Air Force, will operate blood transshipment centers as directed in USCINCPACINST 6530.2J and outlined in DoD Instruction 6480.4. The BTCs will have the capability to store and distribute liquid and frozen red cells, fresh frozen plasma and, when available, frozen platelets. Base medical services directors must have a written emergency contingency implementation plan as directed by AFI 41-106. The BTCs will be exercised annually by base medical services directors using local base medical services BTC contingency personnel.

(3) Commander, CNFK (Commander Naval Forces Korea) will support KAJBPO once Navy vessels into the Korean Theater of operations by providing blood reports as prescribed in the KAJBPO/PACOM Blood Program SOP.

(4) Commander, Medical Brigade, will operate the Theater Blood Support Detachments as directed in USCINCPACINST 6530.2J, AR 40-3, FM 4.02.1, outlined in DoDI 6490.4 and JP 4-02 providing support during armistice and contingency. The BSD has the capability to store and distribute liquid and frozen red blood cells, fresh frozen plasma, cryoprecipitate and platelets. Additionally, the BSD can perform emergency blood drives as directed by the KAJBPO.

(5) The USFK Surgeon will -

(a) Direct the KAJBPO.

(b) Establish a military blood program to meet blood and blood component requirements of all patients receiving medical care in USFK medical treatment facilities (MTFs) in accordance with (IAW) AR 40-3, chapter 5, USCINCPACINST 6530.2J, and AFI 44-105.

(6) The Korea Area Joint Blood Program Officer will -

(a) Serve as overall Blood Program Manager for the USFK during armistice and contingency operations. Serve as a special staff officer to the USFK Surgeon.

(b) Coordinate blood requirements for all health care delivery facilities within Korea regardless of service component.

(c) Ensure all USFK establishments that engage in the manufacturing of blood and blood products register with the FDA, and enforce established standards promulgated in the Current Good Manufacturing Practices (CGMP) for Blood and Blood Components in the Code of Federal Regulations, Title 21, Series 200, 600, and 800, and FM 4-02.70/NAVMED P5120 20/AFM 41-111.

(d) Ensure follow-up of transfusion recipients of non-US FDA approved Blood products is conducted via Preventive Medicine channels and IAW Army Policy on the use of non-US FDA Licensed Blood and Blood Products dated 12 March 2003.

(e) Maintain all area blood program standard operating procedures, involved in the emergency collection of whole blood collection, storage, quality assurance, processing, and distributing blood and blood products. Serve as a conduit between blood collection agencies outside of the KTO, providing assistance with areas of hosting blood drives such as scheduling, facilities, etc.

(f) Provide USPACOM Joint Blood Program Office (JBPO) and HQ USCINCPAC/JO714 with copies of command-level directives/instructions/regulations/ or supplements thereto, specifying procedures for the operation of the KAJBPO.

(g) Provide technical supervision to all USFK transfusion services, BSUs/BPDs, and BTCs.

(h) Coordinate with USPACOM JBPO to identify and request blood and blood products when local requirements exceed USFK capabilities.

(i) Plan, coordinate, implement, and manage the use, storage and distribution of frozen red cells in Korea.

(j) Represent the COMUSKOREA (Commander, U.S. Forces, Korea) and USFK Surgeon as the technical representative and liaison for all matters pertaining to blood and blood products in Korea.

b. Contingency Operations

(1) The Commander USFK will assist with the augmentation of the KAJBPO as outlined in applicable plans.

(2) In addition to the above, the KAJBPO will ensure daily blood reports are submitted by each MTF IAW USCINCPACINST 6530.2J and as shown in Appendix B.

5. Policies

a. In support of in-country blood collections performed by Armed Services Blood Program elements, each Installation Commander will provide command support of the Korea Area Joint Blood Program and will be responsible for providing donors. Donors may include military personnel, their family members, and civilian federal employees.

b. Routine, armistice blood requirements will be met through blood shipments coordinated by the USPACOM JBPO.

c. Collection, receipt, processing, storage, and distribution of blood and blood products throughout USFK are to be under the technical control of the KAJBPO.

d. The USFK Surgeon may authorize transfer of blood in civilian or military emergencies, and disasters for humanitarian purposes.

e. Request for US or ROK blood support from host nation or the US both during peacetime and contingency operations will follow the steps outlined in Appendix F and G.

f. The protection of blood products in a chemical-biological environment will follow the procedures outlined in Appendix H.

g. Every reasonable effort will be made to transfuse within the ABO and Rh type (Appendix D). Only under urgent requirements will Group “0” packed red cells be administered as the only source of blood. Group “0” Rh “Positive” or “Negative” frozen red cells will only be used during emergencies and contingencies where liquid blood supplies have been exhausted.

6. Procedures

a. Armistice

(1) Requirements for blood products that exceed the resources of a USFK MTF will be forwarded to the BSU and the KAJBPO (Figure 1).

(2) Requirements that exceed the resources of the KAJBPO will be forwarded to the USPACOM JBPO, Camp Smith, Hawaii.

(3) The USPACOM JBPO will provide the KAJBPO with the place, time of arrival, and transportation control number for the shipment of requested blood.

(4) The KAJBPO notifies and coordinates the receipt of blood arriving at Osan Air Base.

(5) Blood and blood products will be given priority for movement by air due to the fragile nature of blood and its sensitivity to environmental extremes and rough handling. Blood will be transported using approved shipping boxes.

(6) The MTFs will report to the KAJBPO any blood and blood products considered excess, and the KAJBPO will arrange for redistribution of these products as directed.

(7) The MTFs storing and using blood and blood products will provide weekly (Appendix B) and Quarterly Blood Bank Operational Reports to the KAJBPO (Appendix C).

(8) Final ABO and Rh (Appendix D) quality control testing on the blood supplied by USPACOM will be performed IAW USPACOM procedures prior to blood being shipped to Korea.

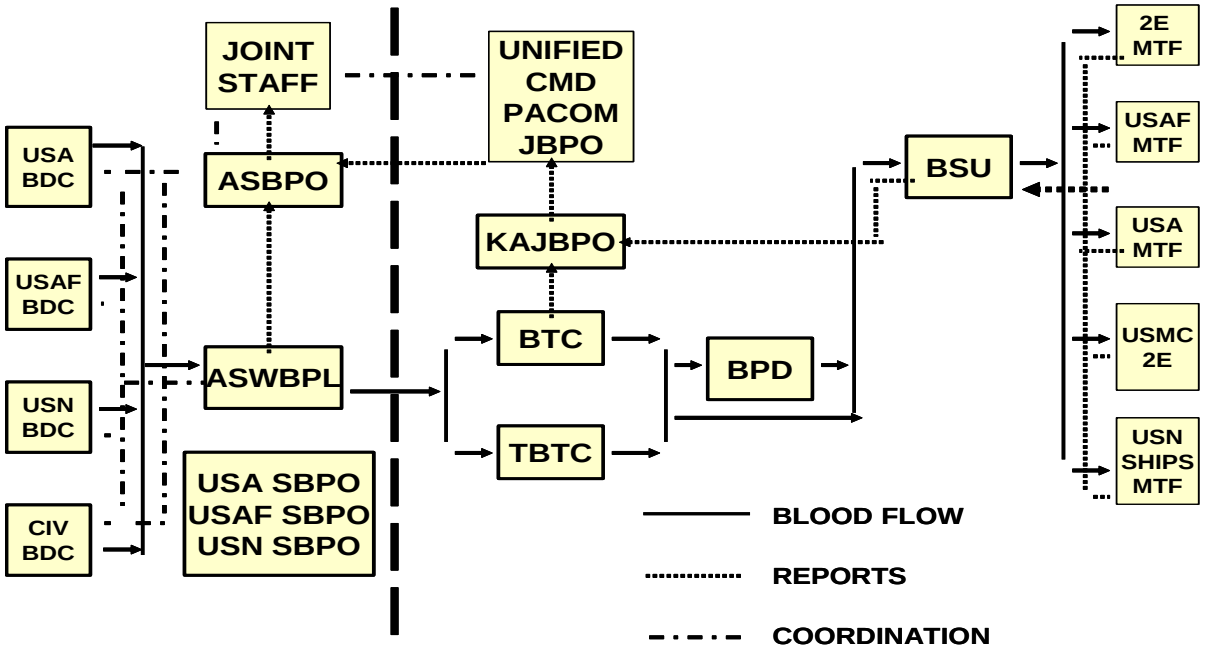


Figure 1. Blood Management during Armistice. In Korea, BSUs and BPDs may be co-located.

b. Contingency Operations

(1) The KAJBPO will function on a tri-service area basis and will be augmented as outlined in applicable plans.

(2) Reporting procedures will be IAW USCINCPACINST 6530.2J and Appendix B of this regulation.

(3) Wartime Blood Status Reports.

(a) Upon activation, the KAJBPO will submit a Daily Blood Report to the USPACOM JBPO.

(b) Upon activation, all BTCs will submit a Daily Blood Report to the KAJBPO.

(c) When activated, all MTFs will submit a Daily Blood Report to the KAJBPO. Once BSUs/BPDs are stocked, the MTFs will be notified as to which BSU will be their supplier of blood and blood products. At that time, MTFs will submit their Daily Blood Reports to the BSU with an information copy to the KAJBPO. During contingency operations, MTFs will also submit a daily blood report to their respective service medical commands (Figure 2).

(d) The BSUs/BPDs will initiate deglycerolization procedures as directed by the KAJBPO. They will submit Daily Blood Reports to the KAJBPO. The BSUs/BPDs will receive their blood and blood products from the BTCs. The BSUs will then store blood accordingly and provide MTFs with blood shipment reports (Appendix B). Transportation arrangements are made directly between the shipping and receiving units. The KAJBPO may be called for transportation assistance.

(4) Blood products available by echelon (Appendix D) and blood transfusion practices by echelon (Appendix E) are provided as a supplement to ODI 6480.4.

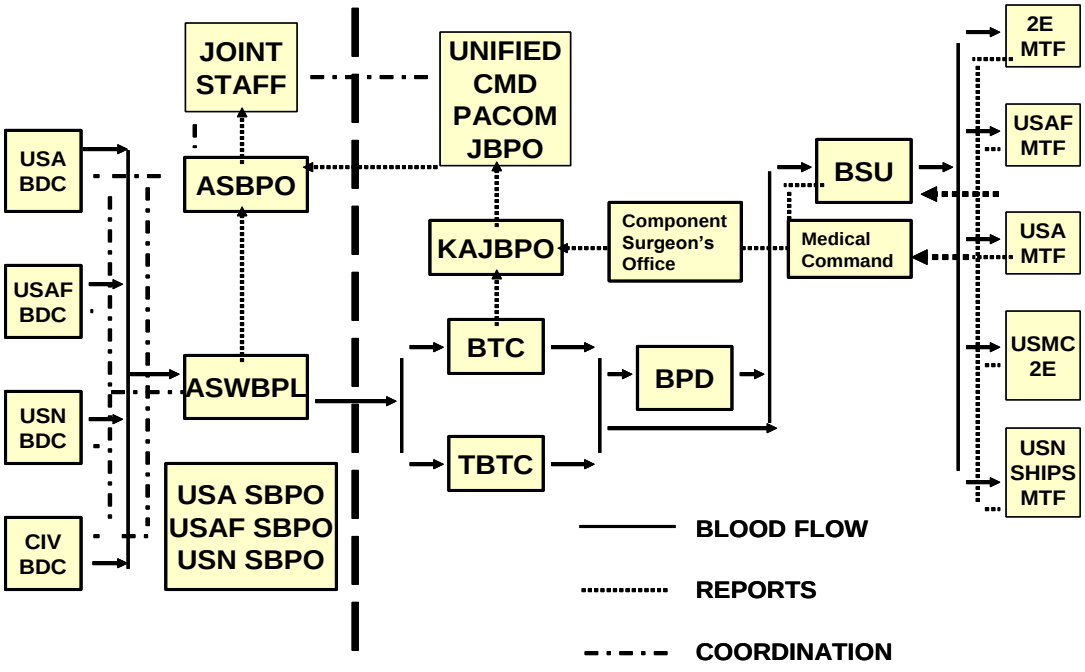


Figure 2. Blood Management during Contingency Operations

Appendix A
References

Section I. Required Publications

AFI 41-106 (Unit Level Management of Medical Readiness Programs)

AFI 44-105 (Air Force Blood Program)

AR 40-3 (Medical, Dental, and Veterinary Care, Chapter 5, Army Blood Program)

Army Policy on the Use of Non-FDA Licensed Blood and Blood Products, 12 Mar 03.

Code of Federal Regulations (CFR), Title 21, Series 200 (Drug Manufacture), 600 (Blood and Blood Components) and 800 (Equipment Procedure Validation), 12 Aug 2004.

DoD Instruction 6480.4 (Armed Services Blood Program (ASBP) Operating Procedures)

FM 4-02.70/NAVMED P-5120/AFM 41-111 (Standards for Blood Banks and Transfusion Services), 31 Jan 04.

JCS Pub 4-02.1, Chapter VI, Section A (Blood Management), 6 Oct 97.

USFK OPLAN 5026/5027 - 04.

USCINCPACINST 6530.2J (U.S. Pacific Command Joint Blood Program)

USPACOM OPLAN 5027.

FM 8-10-7 (Health Service Support in a Nuclear, Biological and Chemical Environment)

Policy for the Use of ID Tags and ID Cards for Emergency Transfusion at the Second Echelon of Medical Care and the Validation of those Parameters, 21 April 95.

Section II. Related Publications
This section has no entries.

Appendix B
Blood Reports

B-1. General Instructions

a. The blood reporting system is an Armed Services Blood Program system used by all services to project blood requirements, request blood products, report blood inventories, and provide information on the overall status of blood operations in the theater. The Blood Report (BLDREP) (see figure B-1) and the Blood Shipment Report (BLDSHIPREP) (see figure B-4) are the reports used to manage blood in theater.

b. Military map coordinates will be used for activity location. Locations will be reported on first report and upon relocation. Blood requests from naval vessels should contain a projected location in order to coordinate delivery of blood products.

c. Blood requests should normally be based on random distribution. Group and type specific blood should be transfused unless not available or medically contraindicated. Certain designated MTFs will require Group “0” blood only. Upon activation, each MTF should request a base load of blood products. This is determined by refrigerator/freezer capacity and mission needs at the time of activation.

d. Email Message is the primary means of submitting a blood report; however, messages can be sent telephonically, when emergency request for blood is needed or when sending by message is impractical. BLDREP messages should be minimally classified. Information copies should be kept to a minimum and specifically required by the respective OPLAN (Operation Plan). Messages will be sent as IMMEDIATE precedence due to very short blood expiration dates.

B-2. Special Instructions for Each Level of Blood Program Management

a. MTF. Each MTF will submit an initial BLDREP to the KAJBPO. KAJBPO will then provide them with their BSU. Subsequent BLDREPs will be submitted to the BSU with an information copy to the KAJBPO. During contingency operations, MTFs will also submit a daily blood report to their respective service medical commands.

b. BSU. The BSU Blood Manager will submit a daily BLDREP to the KAJBPO on the blood status of blood products in the BSU.

c. BTC. The BTC Blood Manager will submit a BLDREP to the KAJBPO on the blood status of blood products in the BTC.

d. KAJBPO. The KAJBPO will submit a daily report to the PACOM Joint Blood Program Office on the status of blood products in the Korean theater.

e. JBPO. The PACOM JBPO will submit a BLDREP to the Armed Services Blood Program Office on the status of blood products in the Area Joint Blood Programs.

MTF	Type in your unit and location here				DTG:	Type in your as of date and time here					
Red Blood Cells											
	O+	**O-**	**A+**	**A-**	**B+**	**B-**	**AB+**	**AB-**	**Total**		
Available	200	40	150	18	10	10	10		**438**		
< 7 days to exp									**0**		
Transfused				100					**100**		
Expired				25	25				**50**	**DOS Color Key**	
Destroyed				23					**23**	**Green**	> 4 DOS
Shipped		12	12						**24**	**Amber**	2-4 DOS
Received				18					**18**	**Red**	< 2 DOS
EST Need			10						**10**		
Need by Date			25-Aug-04			**DOS = units available x 0.8 / units transfused + expired + destroyed + shipped**					
DOS	**1.78**	**Red**									
Frozen Red Cells											
	O+	**O-**	**Total**								
Available			**0**								
Deglyced			**0**								
Expired			**0**								
Destroyed			**0**								
Shipped			**0**								
Received											
	O+	**O-**	**Total**	**Cat**							
< 10yrs, tested			**0**	**I**							
< 10yrs, no p24			**0**	**II**							
< 21yrs, tested			**0**	**III**							
< 21yrs, no p24			**0**	**IV**							
Total			**0**								
Fresh Frozen Plasma						**Platelets**					
	O	**A**	**B**	**AB**	**Total**		**O**	**A**	**B**	**AB**	**Total**
Available					**0**	**Available**					**0**
Destroyed					**0**	**Expired**					**0**
Shipped					**0**	**Shipped**					**0**
Received					**0**	**Received**					**0**
Note:	Include all received units in the available row as well. Type requests for FFP and PLTs here										

Figure B-1. Blood Report Format

B-3. Blood Shipment Report Instructions

a. The BLDSHIPREP is used by the Armed Service Blood Program to report blood shipments. The message should be sent as IMMEDIATE due to very short blood expiration dates. When a shipment is made, the shipping unit must send a BLDSHIPREP to the receiving unit to allow knowledge of the coming shipment. Transportation arrangements are made directly between the shipping and receiving units. The KAJBPO may be call for assistance with transportation.

b. Military map coordinates will be used for activity location. Blood shipments to naval vessels should contain a projected location in order to coordinate delivery of blood products.

HEADING INFORMATION

	Local Time	Zulu Conversion	
Day	27	26	
Hour	0700	2200	
Month	AUG	AUG	
Year	04	04	

FROM/CDR UNIT LOCATION/OFFICE SYMBOL BSU A//	B 16TH MEDLOG
TO/CDR UNIT LOCATION//OFFICE SYMBOL MTF A//	121st GH
INFO/COMUS LOCATION//AJBPO//	KAJBPO
BSU IS LOCATED IN THE VICINITY OF PYONGTAEK AT CP HUMPHREYS GC=52SCF3543595176	
CLASSIFICATION/	UNCLASSIFIED
OPERATION/	UFL04
Shipment	

Additional Info for BLDSHIPREP

Point of Contact: (Name)	John Doe	Rank	SFC
Primary Phone # (DSN)	724-3148		
Blood Iced (DTG)	081400IAUG04		
# of Boxes Shipped	SIX		6
Shipment Via /Mission #	TK93 SH64 5900	Product	
1) Shipment from	BSU 16th MEDLOG	To	121st GH
2) Shipment from		To	
3) Shipment from		To	
TCN #	9940 2537 2401 XXX		
Est Arrival Date/Time	081600IAUG04		
PLEASE ACKNOWLEDGE SHIPMENT RECEIPT BY PHONE/FAX ASAP// 724-3148 FAX- 724- 3142			

Blood Product	Total	O Pos	O Neg	A Pos	A Neg	B Pos	B Neg	AB Pos	AB Neg	Check Total
Frozen Red Cells	0	0	0							0
Red Cells	77	45	20	15	10	5	2	0	0	97
FFP	25	15		5		10		15		45
Platelets	7	3		2		2		0		7

Figure B-2. Blood Shipment Report Format

Appendix C
DD Form 2555 (Armed Services Blood Program Blood Bank Operational Report)

ARMED SERVICES BLOOD PROGRAM
BLOOD BANK OPERATIONAL REPORT

REPORT CONTROL SYMBOL
4

1. FACILITY/COMMAND
121st General Hospital

2. UIC

3. PERIOD OF REPORT a. FROM (YYMMDD) b. TO (YYMMDD
a: 04 OCT 01 b: 04 DEC 31

SECTION I - WHOLE BLOOD/RED BLOOD CELLS (RBCs)

RECEIPTS	Units	Total $	Total Units	DISPOSITIONS	Units	Total $	Total Units
4. BEGINNING INVENTORY			54	9. TOTAL UNITS TRANSFUSED			23
				a. WHOLE BLOOD	0		
5. TOTAL DONATIONS			0	b. RED BLOOD CELLS	23		
				c. AUTOLOGOUS	0		
a. MILITARY				d. DIRECTED	0		
b. DEPENDENT				10. TOTAL SHIPPED TO GOVERNMENT SOURCES			4
c. CIVILIAN				a. AIR FORCE	4		
d. AUTOLOGOUS				b. ARMY			
e. THERAPEUTIC				c. NAVY	0		
f. DIRECTED				d. ASWBPL	0		
g. OTHER				e. ASBBC	0		
6. TOTAL REC'D FROM GOVERNMENT SOURCES			180	f. VA	0		
				g. OTHER			
a. AIR FORCE	24			11. TOTAL SHIPPED TO CIVILIAN SOURCES			0
b. ARMY	156			a. AABB	0	0	
c. NAVY				b. ARC	0	0	
d. ASWBPL				c. CCBC	0	0	
e. ASBBC				d. COMPASS	0		
f. VA				e. OTHER		0	
g. OTHER				f. TOTAL $		0	
7. TOTAL RECEIVED FROM CIVILIAN SOURCES			0	12. OUTDATED			212
				13. TOTAL CONVERTED TO FROZEN RBCs			0
a. AAABB				a. FRESH	0		
b. ARC				b. REJUVENATED	0		
c. CCBC				14. OTHER DISPOSITIONS			0
d. COMPASS				a. HOMOLOGOUS	0		
e. OTHER				b. AUTOLOGOUS	0		
f. TOTAL $				c. DIRECTED	0		
				d. OTHER	0		
8. QUARTERLY TOTAL			288	15. ENDING INVENTORY			49
				16. QUARTERLY TOTAL			288

SECTION II – OTHER COMPONENTS

	RECEIPTS						DISPOSITIONS							
	a. BEGIN-NING INVEN-TORY	b. UNITS PRE-PARED	c. REC'D FROM GOV'T	d. REC'D FROM CIVILIANS		e. QTRLY TOTAL	f. UNITS TRANS-FUSED	g. SHIPPED TO GOV'T	h. SHIPPED TO CIVILIAN		i. OUT-DATED	j. OTHER DISP	k. ENDING INVEN-TORY	l. QTRLY TOTAL
				UNITS	TOTAL$				UNITS	TOTAL$				
17. FROZEN RBCs														
18. DEGLYCEROLIZED RBCs														
19. PLATELET CONCENTRATE														
20. FROZEN PLATELETS														
21. WASHED PLATELETS														
22. FFP	39		22			61	6				19		36	61
23. CRYO AHF	40					40					40		0	40
24. PLASMA(PHERESIS)														
25. PLATELET(PHERESIS)	1		26			27					26		1	27
26. GRANULOCYTE(PHERESIS)														
27. WASHED RBCs														
28. LEUKO-POOR RBCs														
29. OTHER *(Specify)*														

DD Form 2555 Front, JAN 90

DD Form 2555 (Armed Services Blood Program Blood Bank Operational Report) - Reverse

SECTION III - PRODUCT MANAGEMENT STATISTICS		SECTION IV - TRANSFUSION COMPLICATIONS				
30. TOTAL DONORS INTERVIEWED		38. TOTAL NUMBER	0		HIV-1	HTLV-1
31. TOTAL RBC/WB CROSSMATCHES	51	a. HEMOLYTIC		39. TOTAL LOOK BACK CASES		
32. TOTAL RBC/WB TRANSFUSED	23	b. FEBRILE/ALLERGIC	0			
33. CROSSMATCH:TRANSFUSION RATIO	2.2:1	c. POST-Tx HEP B		a. LOCALLY INITIATED		
34. TOTAL # PATIENTS TRANSFUSED	7	d. POST-Tx HEP C		b. RECEIVED FROM GOVERNMENT		
35. #TYPE AND SCREENS PERFORMED	253	e. POST-Tx HIV-1 POS				
36. #TYPE AND SCREENS CONVERTED TO CROSSMATCHES	3	f. OTHER		c. RECEIVED FROM CIVILIAN		
37. RBC/WB OUTDATE RATE						

SECTION V – TESTING

	a. UNITS TESTED	b. INITIALLY REACTIVE *(Screen Positive)*		c. REPEATABLY REACTIVE *(Repeat Pos)*		d. CONFIRM PENDING	e. CONFIRM POSITIVE		f. DEFERRALS	
		#	%	#	%		#	%	TEMP	PERM
40. HIV-1										
41. HBsAg										
42. STS										
43. HTLV-1										
44. ALT										
45. ANTI-HBc										
46. CMV										
47. HEP C										
48. OTHER										
49. OTHER										

SECTION VI- BLOOD PRODUCTS ACCOUNTS					SECTION VII - CIVILIAN COLLECTIONS		
	Recovered Plasma	Source Plasma	Blood Exchange Account Balance			Military	Civilian
					56. TOTAL		
50. PLASMA SHIPPED			53. NATIONAL BLOOD EXCHANGE (AABB)	Units	a. AABB		
					b. ARC		
51. VALUE PER LITER			54. COMPASS (ARC)	Units	c. CCBC		
					d. OTHER *(Specify)*		
52. ACCOUNT BALANCE			55. OTHER	Units	e. OTHER *(Specify)*		
					f. OTHER *(Specify)*		

SECTION VIII - REMARKS AND AUTHORIZATION

57. REMARKS

58. PREPARER		59. COMMANDER *(Or Official Designee)*	
a. Name (Last, First, MI) Nam, Pil Sun	b. GRADE KGS-9	a. NAME (Last, First, MI)	b. GRADE
c. TITLE Blood Bank Supervisor	d. TELEPHONE NO. (Autovon) 737-6639	c. TITLE	d. TELEPHONE NO. (Autovon)
e. SIGNATURE [Original Signed]	f. DATE SIGNED (YYMMDD) 05 Jan 04	e. SIGNATURE	f. DATE SIGNED (YYMMDD)

DD Form 2555 Reverse, JAN 90

Appendix D
Blood Products (CLASS VIIIB) Available to the Theater

PRODUCT	UNIT OF ISSUE	SHELF LIFE		ECHELON AVAILABLE	DISTRIBUTION O+/- A+/- B+/- AB+/-
		FOR STORAGE	FOR TRANSFUSION		
LIQUID RED BLOOD CELLS	APPROX 250 ml	42 DAYS	42 DAYS	2E*	100% -- -- --
				3E & 4E	50% 40% 10% --
FROZEN/ DEGLYCEROLIZED RED BLOOD CELLS	APPROX 250 ml	10 * * YEARS	3 DAYS (POST-WASH)	3E & 4E	100% -- -- --
FRESH FROZEN PLASMA	APPROX 250 ml	2 YEARS	24 HOURS	3E & 4E	Mixture of available blood types according to current inventory.

* New Technologies such as the “Golden Hour” container have recently allowed SF medics to transport blood far forward in the battlefield.

** At the direction of The Armed Services Blood Program Office, storage of Frozen Red Cells in Korea has been extended to 21 years.

Appendix E
Blood Transfusion Practices by Echelons

ECHELON	BLOOD PRODUCT	GROUP/ TYPE	TRANSFUSION SERVICE PROCEDURES	STORAGE CAPACITY	BLOOD RESUPPLY
I	NONE *	---------	---------	---------	----------
II	RED BLOOD CELLS (RBCs)	O Rh +/-	GROUP & TYPE DONOR RBCs**	50 UNITS RBC PER FLD MED REFRIGERATOR	3E BLOOD 3E BLOOD SUPPLY UNIT(BSU)
III D304***	RED BLOOD CELLS (RBCs)	O, A, B Rh +/-	GROUP & TYPE DONOR** & PATIENT RBCs **PLUS** I.S. CROSSMATCH	500 UNITS LIQUID RBCs	3E BSU
III D404***	RED BLOOD CELLS (RBCs)	O, A, B Rh +/-	SAME AS D304	485 UNITS FROZEN 500 UNITS LIQUID	3E BSU
	FRESH FROZEN PLASMA (PFF)	AVAILABLE TYPES		10 UNITS	3E BSU
IV	SAME AS D404	SAME AS D404	SAME AS D404	SAME AS D404	4E BSU

* New Technologies such as the “Golden Hour” container have recently allowed SF medics to transport red blood cells far forward in the battlefield.

** Required only if <u>not</u> retested by ASWBPL.

*** Capability to collect and group/type 180 units of whole blood for extreme emergencies.

Note: D304 is a liquid-only DEPMEDS module. D404 is a hybrid liquid-frozen DEPMEDS module.

Appendix F
Request for Host Nation Blood Support from the US

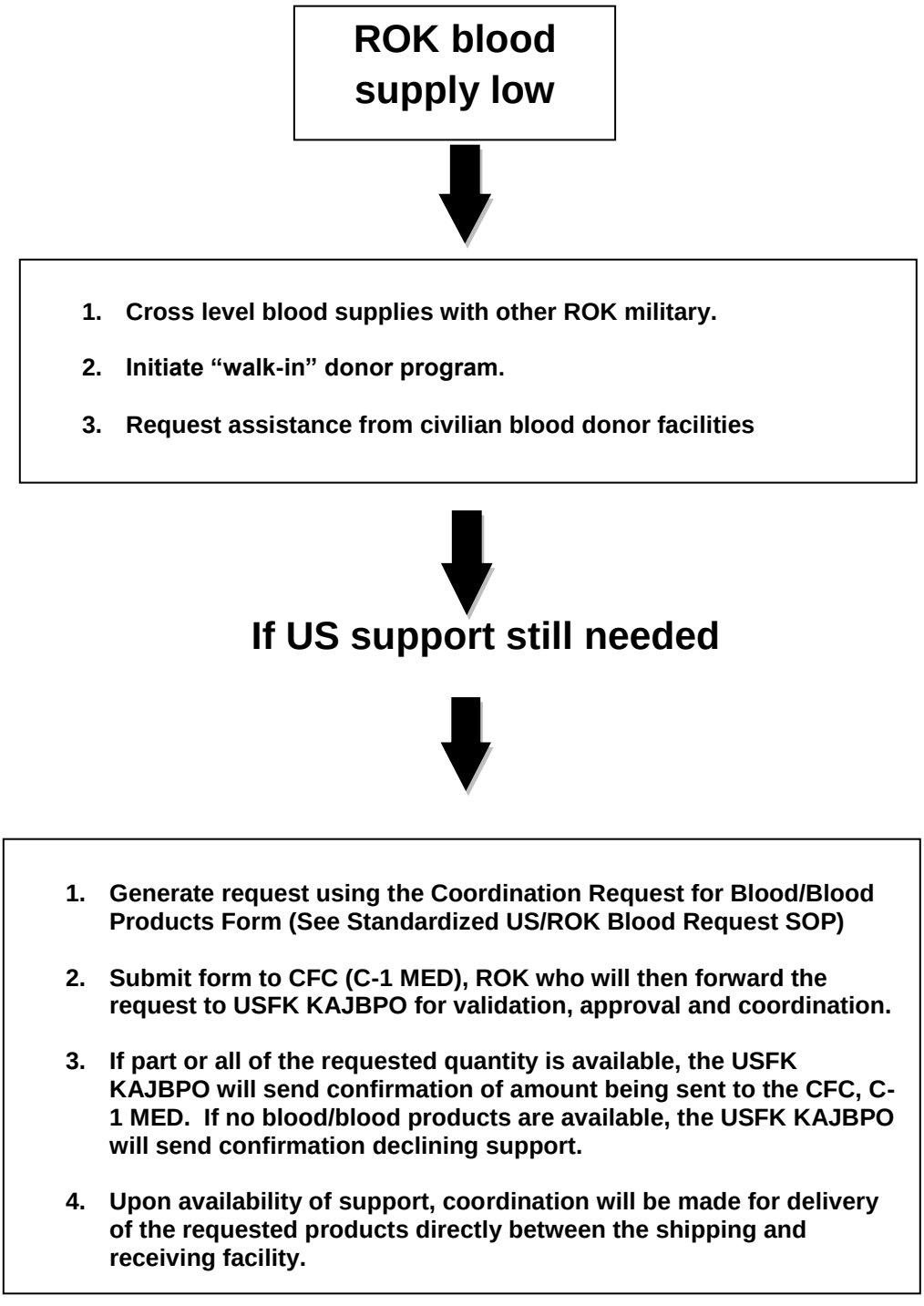
US blood supply low

1. **Cross level blood supplies with other US military treatment facilities on the peninsula.**
2. **Notify PACOM Joint Blood Program Office of shortfalls/request in order cross level blood support from off the peninsula.**
3. **Activate deglcerolization procedures.**

If ROK support still needed

1. **Generate request using the Coordination Request for Blood/Blood Products Form (See Standardized US/ROK Blood Request SOP)**
2. **Submit form to USFK Korean Area Joint Blood Program Office who will forward to CFC (C-1 MED), ROK for validation, approval and coordination.**
3. **If part or all of the requested quantity is available, the CFC, C1- MED will send confirmation of amount being sent to the USFK, KAJBPO. If no blood/blood products are available, the CFC, C1-MED will send confirmation declining support.**
4. **Upon availability of support, coordination will be made for delivery of the requested products directly between the shipping and receiving facility.**

Appendix G
Request for US Blood Support from the Host Nation



Appendix H
Recommendations for Protection of Blood Products in a Chemical-Biological Environment

a. Use these measures prior to suspicion of a biological or chemical attack, especially if enemy has capability to use such measures.

b. Keep blood and blood supplies in tents or buildings.

(1) Two layers of plastic covered over blood storage containers, equipment, and supplies provide protection from most agents for a short period of time.

(2) Cover all unprotected boxes that contain blood products, especially when used for blood storage.

(3) Place chemical detection devices in entry/exit points and in key locations inside blood storage tent/building.

(4) Clean blood bank equipment with 10% Clorox solution and cover in plastic when not in use.

c. Chemically protected overwraps (NSN 6530-01-325-4360) for the standard liquid blood shipping box are available.

(1) Use chemical overwrap bags when shipping blood products or storing blood.

(2) If chemical overwraps are not available, place blood boxes in two durable plastic bags and tape securely.

d. Destroy all blood products that have become contaminated with biological or chemical agents (blood is collected in a plastic bag that is permeable to the air).

Appendix I
Blood Support to Rh Negative Patients

I-1. Medical Implications

a. FEMALES: Transfusing Rh positive red blood cells to Rh negative females at Level II medical care, where blood grouping and typing capabilities are not available, may result in future complications if the female is of child-bearing age. If a female develops an anti-D antibody and a future fetus is Rh positive, hemolytic disease of the newborn may result. Thus, it is paramount to reduce the transfusion of Rh positive blood to Rh negative females of child-bearing age.

b. MALES: Although the impact of sensitization on males and the health care system is not as great, the proposed changes for transfusion at the Level II medical care will help to reduce the sensitization to Rh negative males.

I-2. Procedures

a. Rh negative red blood cells are to be provided to Rh negative females and males at the Level II medical care.

b. ID tags and cards will be used at the Level II medical care to determine the patient's Rh factor only.

c. If there is a shortage of group O, Rh negative red blood cells at the Level II medical care, priority of the Rh negative blood for transfusions will be given to the Rh negative females.

d. In extreme cases where there may not be enough Rh negative blood to meet all the needs of the female patients, the use of Rh positive blood becomes an EMERGENCY REQUIREMENT in saving a patient's life.

e. In those cases where a female patient does not have an ID tag/card and a transfusion at the Level II medical care is required, Rh negative blood will be given.

f. The medical officer in charge of a Level II MTF should have written procedures for using the ID tag/card in providing Rh negative males with Rh negative blood.

g. Level III MTFs and higher have the capacity to group, type and crossmatch blood with group and Rh type specific red blood cells and are not authorized to use ID tags and cards, except in emergencies.

Glossary

Section I. Abbreviations

AABB	American Association of Blood Banks
AJBPO	Area Joint Blood Program Officer.
ASBBC	Armed Services Blood Bank Center
ASBPO	Armed Services Blood Program Office
ASWBPL	Armed Services Whole Blood Processing Laboratory
BDC	Blood Donor Center
BLDREP	Blood Report
BLDSHIPREP	Blood Shipment Report
BP	Blood Products
BPD	Blood Products Depot
BSU	Blood Supply Unit
BTC	Blood Transshipment Center
COMUSKOR	Commander, U.S. Forces, Korea
FDA	Food and Drug Administration
FFP	Fresh Frozen Plasma
IAW	In accordance with
JCS	Joint Chiefs of Staff
JBPO	Joint Blood Program Officer
KAJBPO	Korea Area Joint Blood Program Office
MTE	Medical Treatment Element
MTF	Medical Treatment Facility
OPLAN	Operation Plan
RBCs	Red Blood Cells
SBPO	Service Blood Program Officer

TBTC	Transportable Blood Transshipment Center
TC	Type and Crossmatch
TS	Type and Screen
USCINCPAC	United States Commander in Chief, Pacific
USFK	United States Forces, Korea
USPACOM	United States Pacific Command

Section II. Terms

American Association of Blood Banks (AABB). A civilian blood banking association which sets policies and standards for blood banks within the United States. The AABB also publishes Standards for Blood Banks and Transfusion Services, and Technical Manual, both of which have been adopted for use by the military as official publications.

Area Joint Blood Program Office (AJBPO). A tri-service staffed office responsible for joint blood program management in an assigned geographical area within a unified command. Each area includes at least one blood transshipment center (BTC) and any number of blood supply units (BSU) and medical treatment elements (MTE).

Armed Services Blood Program Office (ASBPO). A tri-service staffed joint health agency operated by the Chief of Staff, United States Army, as Executive Agent for the Joint Chiefs of Staff. The office is subject to the direction, control, and authority of the Joint Chiefs of Staff whereas the Assistant Secretary of Defense (Health Affairs) is responsible for providing overall policy guidance.

Armed Services Whole Blood Processing Laboratory (ASWBPL). A tri-service staffed organization responsible for central receipt and processing of blood products from CONUS blood banks, and shipment of those products to designated unified command Blood Transshipment Centers (BTCs).

Blood Donor Center (BDC). Component staffed; responsible for collection and processing of blood products. A BDC may serve as a BSU.

Blood Products Depot (BPD). Component staffed; responsible for strategic storage of frozen blood products. Upon activation, may thaw, wash and distribute red blood cells, or may distribute frozen products. May be a component-designated medical treatment element (MTE).

Blood Report (BLDREP). Report used for requesting and providing blood product capabilities and status at various blood program activities.

Blood Shipment Report (BLDSHIPREP). Report used in the shipment of blood products between various blood program activities.

Blood Supply Unit (BSU). A component staffed unit responsible for the receipt of blood products from blood transshipment centers (BTC) or blood product depots (BPD) and issuing those products to medical treatment elements on an assigned geographical area as directed by an Area Joint

Blood Program Office (AJBPO). A BSU may be any type unit or facility designated by a component. May be co-located with a BPD.

Blood Transshipment Center (BTC). A USAF-staffed unit responsible for receiving blood products from an Armed Services Whole Blood Processing Laboratory (ASWBPL), blood products depot (BPD) or another BTC, re-icing those products, and issuing the products to blood supply units (BSU) or medical treatment elements (MTE) IAW direction from the Area Joint Blood Program Office (AJBPO).

Food and Drug Administration (FDA). The Division of Blood and Blood Products of the FDA establishes standards and procedures for use by blood banks involved in interstate commerce, and grants licenses to blood banks complying with those standards. The military departments voluntarily comply with these standards, and each service Surgeon General holds a license for his respective service's blood banks.

Fresh Frozen Plasma (PFF). Plasma is the liquid obtained when red blood cells are separated from whole blood. This can be frozen and stored for two years at -18 degrees centigrade or cooler.

Joint Blood Program Office (JBPO). A tri-service staffed office responsible for joint blood product management in a unified command theater of operations.

Platelets (PPC or PLT). Platelets are elements of the blood which assist in clotting. Platelets are separated from whole blood and plasma by centrifugation and stored at room temperature for up to five days or can be frozen for up to two years.

Red Blood Cells (RBC). Separated from whole blood by removal of plasma. If drawn in the anticoagulant CPDA1, red blood cells must be transfused within 35 days of the date the blood was drawn. If frozen within six days of being drawn, they can be frozen and stored for ten years. They also may be chemically rejuvenated up to three days after expiration (38 days) and then frozen and stored for up to ten years. In Korea, the shelf-life of frozen red cells has been extended by the ASBPO to 21 years.

Type and Crossmatch (TC). A procedure in which a patient's serum is mixed with the red blood cells from a unit of donated blood to determine whether the donated blood can be safely transfused to the patient.

Type and Screen (TS). A procedure carried out in which a patient's blood type is determined and his/her blood screened for unusual antibodies. This procedure is used when the chance that a patient will need a blood transfusion is not considered to be very great. By performing the blood type, the blood bank is able to ensure that there is blood of the patient's type on hand if needed. The antibody screen is performed to maximize the chances of a compatible crossmatch if the patient does require blood.