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COMMAND AND STAFF TRAINING INSTITUTE BANGLADESH AIR FORCE



Individual Staff Studies Programme (ISSP)

PROFESSIONAL SUBJECT-1 : LOGISTICS
PHASE-8 : PART-I

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PHASE-8 : PART-I

First Edition : August 2011

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Approved vide Air HQ/10066/Air Trg/Vol-46/64A dt 18 Jan 2011.

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CONDUCT OF THE PHASE**PHASE-8 : PART-I****LOGISTICS**

Ser No.	Topic		Periods Distr	Total Period
1	Logistic Organizations in BAF			
	Sub Topic	Introduction to Logistic Org in BAF	2	5
		Org Chart of Sup Dte and 201 MU		
		Org Chart of 203 MU and 202 MU	1	
		Org Chart of Base Sup Sqn	2	
		Org Chart of BAF Press and Embarkation Unit		
2	Role of BAF Logistic System			
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		Org of Log System at Base	1	
		Org and Functions of Log Depots	1	
		Org and Functions of other Log Agencies	1	
3	Glossary of Logistics Terms		6	6
4	Scale of Equipment and Accounting Record			
	Sub Topic	Scale of Equipment	2	2
		Accounting Records	3	3
5	Issue of Clothing to Cadets and Recruits			
	Sub Topic	Issue of Clothing to Cadets	2	4
		Initial Issue to Recruits	2	
6	Issue of Clothing to Officers/Seconded Officers			
	Sub Topic	Flying Clothing Card	1	3
		Issue of Clothing to Officers	2	
		Issue of Clothing to Seconded Officers		
7	Valuable And Attractive Items			
	Sub Topic	Responsibility	2	4
		Documents, Vouchers and Records	2	
8	Stock Taking Procedure		4	4
9	Local Purchase and Local Services Contract			
	Sub Topic	Power of Local Purchase and Type of Tender	3	6
		Procedure of Local Purchase	3	
			Local Services Contract	4

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Ser No	Topic		Periods Distr	Total Period
10	Fuel, Oil and Lubricant			
	Sub Topic	Introduction to Hydro-carbon	1	10
		Glossary of POL Terms	5	
		Aviation Products	2	
		Products Used for Mechanical Transports	2	
11	Procedure on Different Gases			
	Sub Topic	Provisioning of Gases	2	6
		Collection and Issue Procedure	2	
		Storage and Inspection	2	
12	System of Priority and Priority Demands			
	Sub Topic	Types of Priority	2	4
		Procedure	2	
13	Revision and TAE Writing			12

Total Page..... (Excluding Pages of Self Assessed Exercise)

Total Period 66

Note:

- Each Period Comprises 40 Min.
- Total Time 08 Week.
- Per Week 10 Period.
- Rest 12 Periods for Revision and TAE Writing.

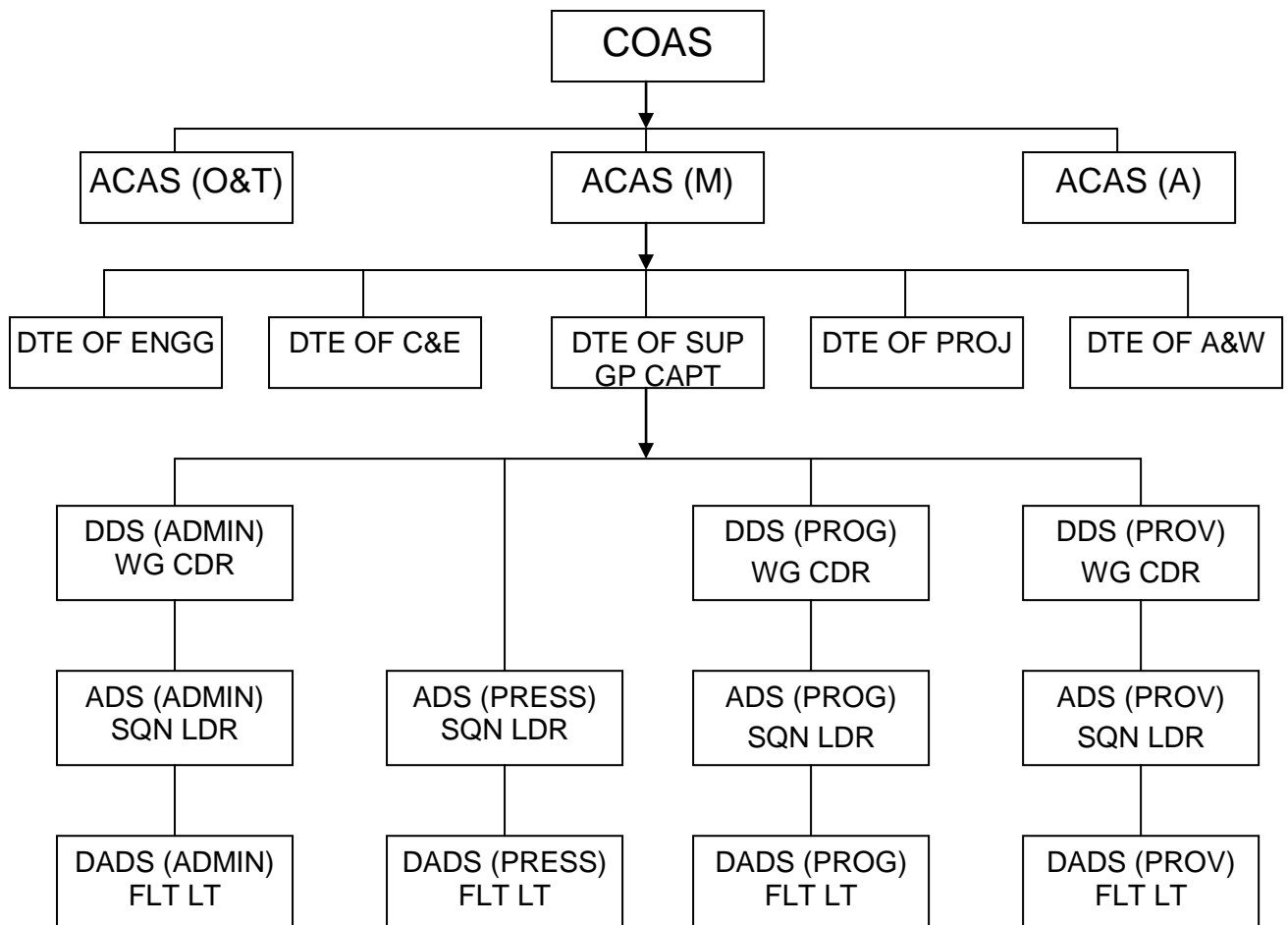
INTRODUCTION TO THE PHASE

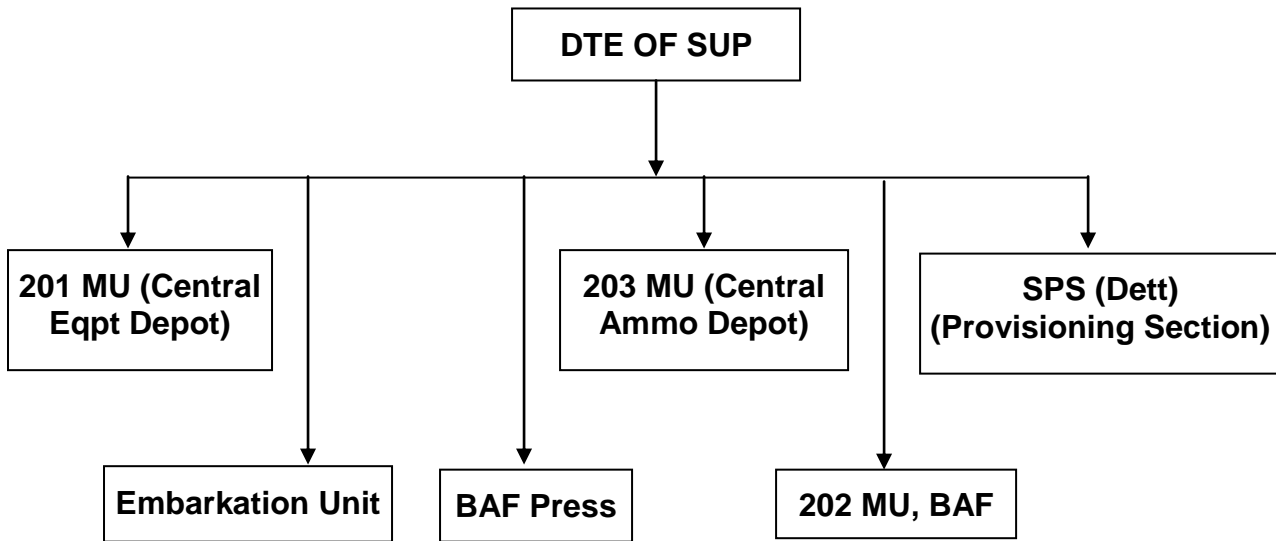
1. In this phase, the topics are selected to suit the experience of officers of Logistic Branch and impart useful knowledge in discharging their duties in BAF.
2. The syllabus is divided into different topics to make the study systematic and easier for young officers. Self-assessed exercises have been included at the end of the chapter so that you can progressively check your knowledge and understanding of material. The self-assessed exercises will enable you and your tutor to measure the degree of success in achieving the objectives.

TOPIC-1**LOGISTIC ORGANIZATIONS IN THE BAF****Introduction to Logistic Organizations**

1. Organization is the act of arranging in systematic way for use or action. It means, organization is a unit or an institution which is united by men and materials in a systematic way for a particular or specific purpose. Bangladesh Air Force is a defense organization. Directorate of Supply is an organization which comes under Assistant Chief of Air Staff (Maintenance). Logistic Branch under Directorate of Supply is the source of all supply informations, administration, direction and policy matters regarding all Logistics activities in the BAF.

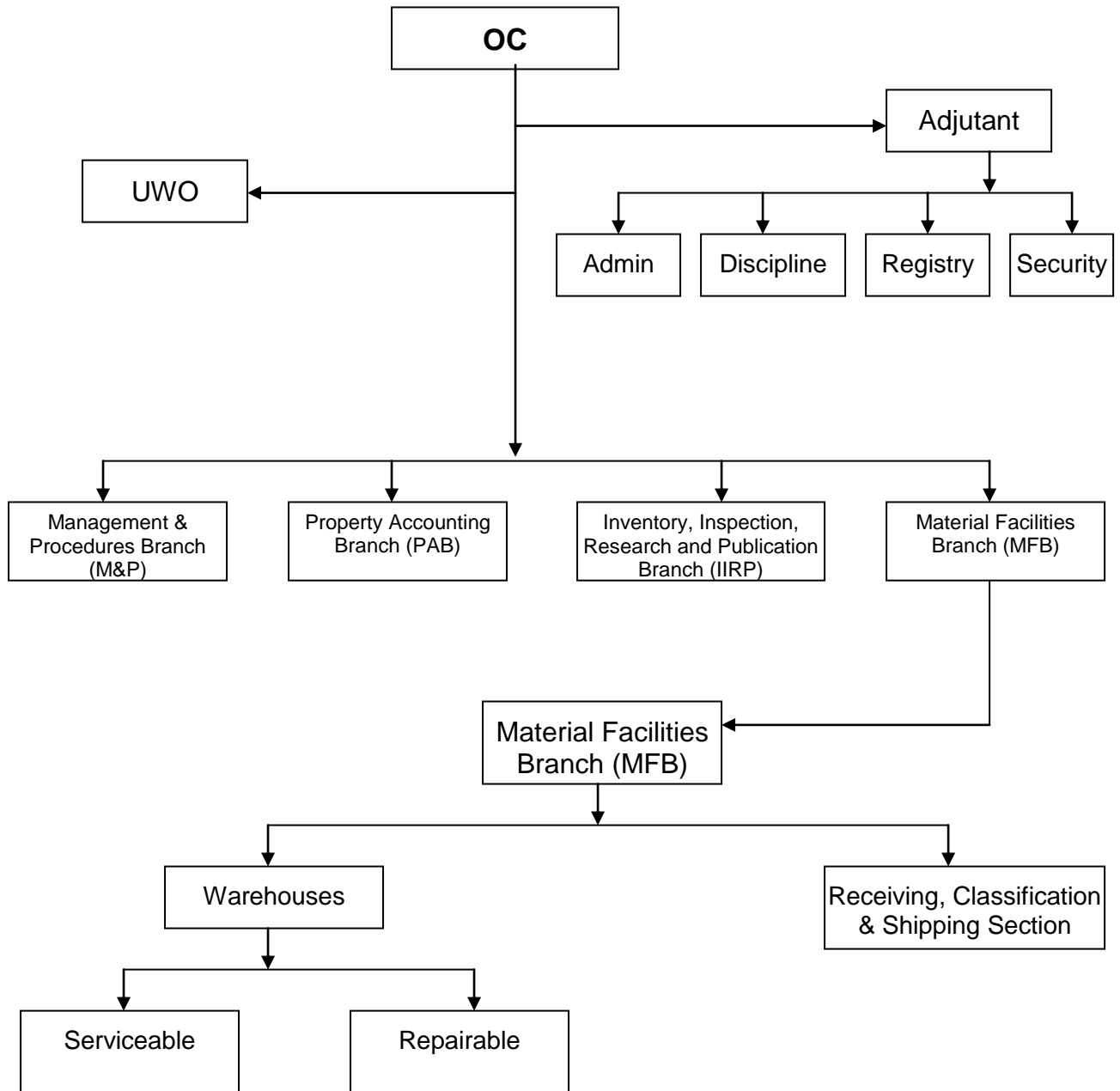
2. The layout of Supply Directorate and the logistic organizations are shown in the next charts of this précis for easy understanding of the student officers.

ORGANIZATION CHART OF DIRECTORATE OF SUPPLY

LOGISTIC ORGANIZATIONS IN BAF**ORGANIZATION OF 201 MU BAF (EQUIPMENT DEPOT)**

3. The practical and day to day works of logistic branch are done at Equipment Depot level in 201 MU, BAF. Therefore, an efficient and effective organization in depot level is essential. For that Equipment Depot is further divided into different sections /sub-sections for smooth functioning. Each section/sub-section deals with separate and definite jobs entrusted to them. This is known as organization of Equipment Depot (No 201 MU), BAF. Layout of the Equipment Depot which is known as 201MU, BAF is shown below:

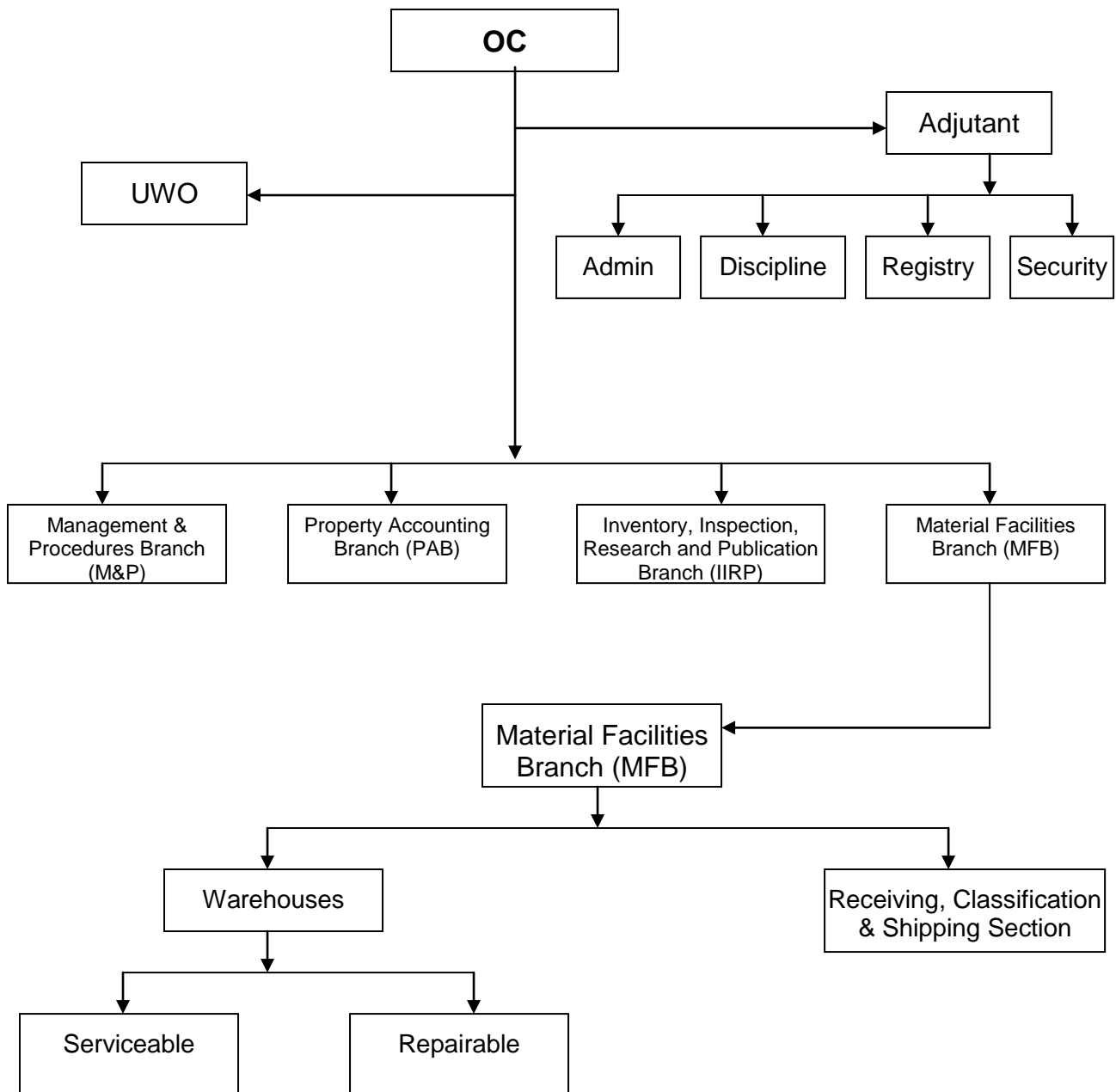
ORGANIZATION CHART OF 201 MU BAF



Organization Chart of 202 MU, BAF

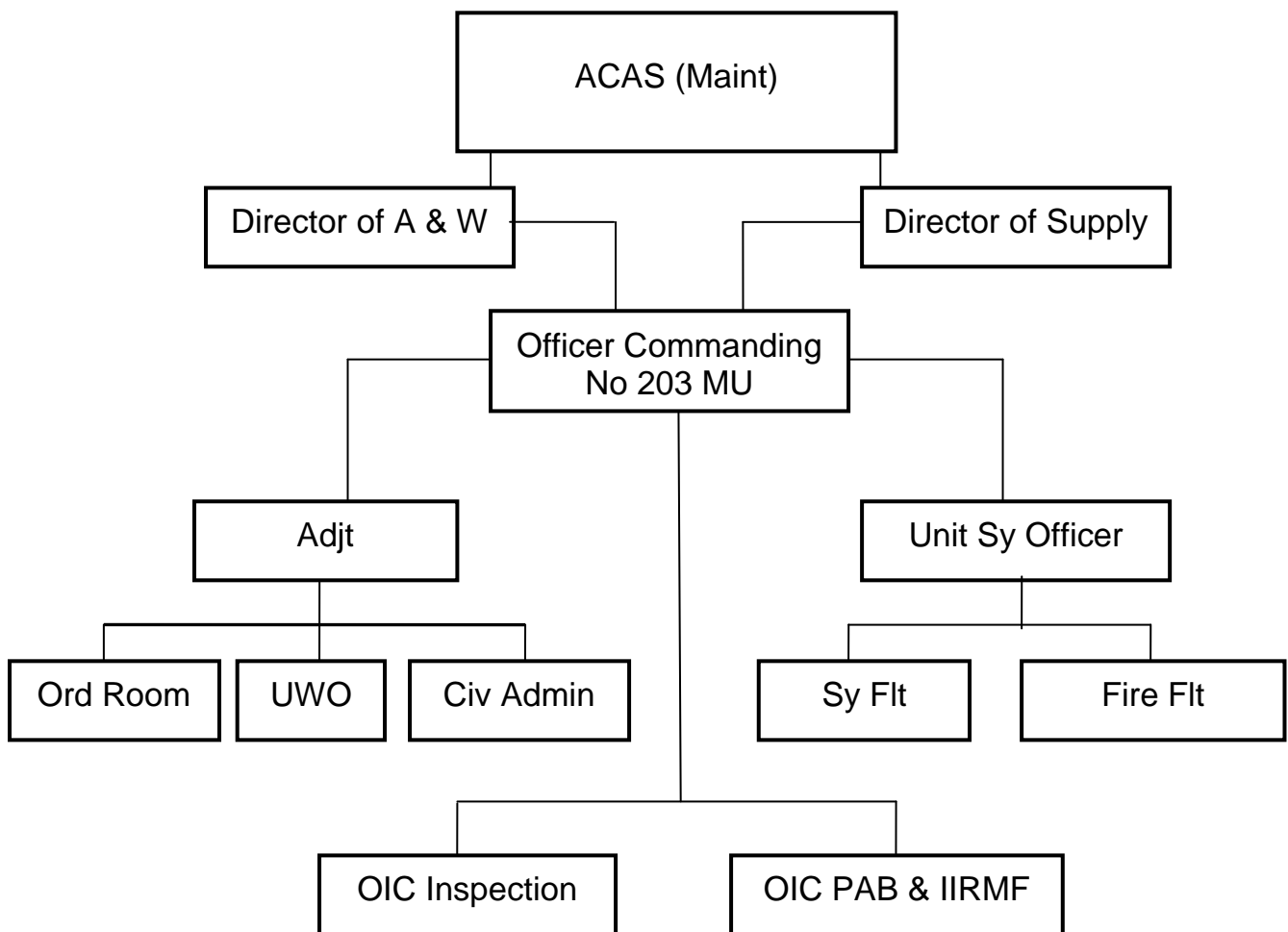
4. It is located at BAF Base Zahurul Haque, Chittagong for providing effective support for the aircraft and helicopters positioned at Chittagong area. This depot is directly receiving items of concerned aircraft and helicopters from BAF Embarkation Unit. The major activities are like 201MU, BAF.

ORGANIZATION CHART OF 202 MU, BAF



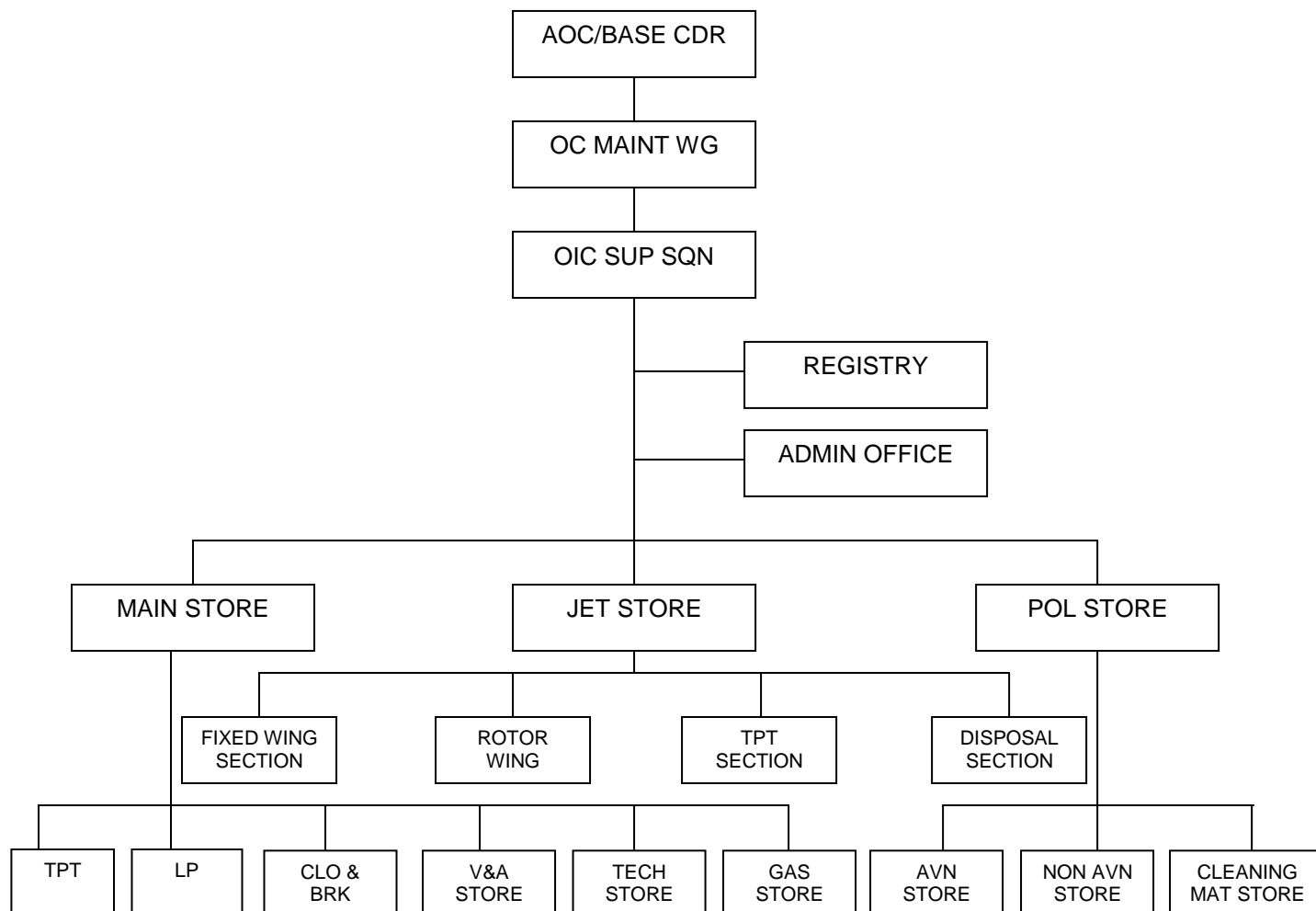
Organization Chart of No 203 MU, BAF

5. Every organization has some specific or particular jobs. Accordingly, organization of 203 MU, BAF deals with arms, ammunitions and explosives which are used in BAF. The functions of 203 MU, BAF are receipt, storage, maintenance and issuance of arms, ammunitions and explosives to consumer units as per the requirement following existing rules and regulations. For that No 203 MU, BAF is divided into sections and sub sections for smooth functioning. Each section/sub section deals with prescribe jobs to fulfill the aim of No 203 MU, BAF. This organization comes under dual control of Director of Supply and Director of Armament and Weapons. For issue, receipt, accounting and storage, OC 203 MU is responsible to Director of Supply while for inspection, sentencing and disposal, he is responsible to Director of Armament and Weapon. Org chart of 203 MU, BAF is shown below:

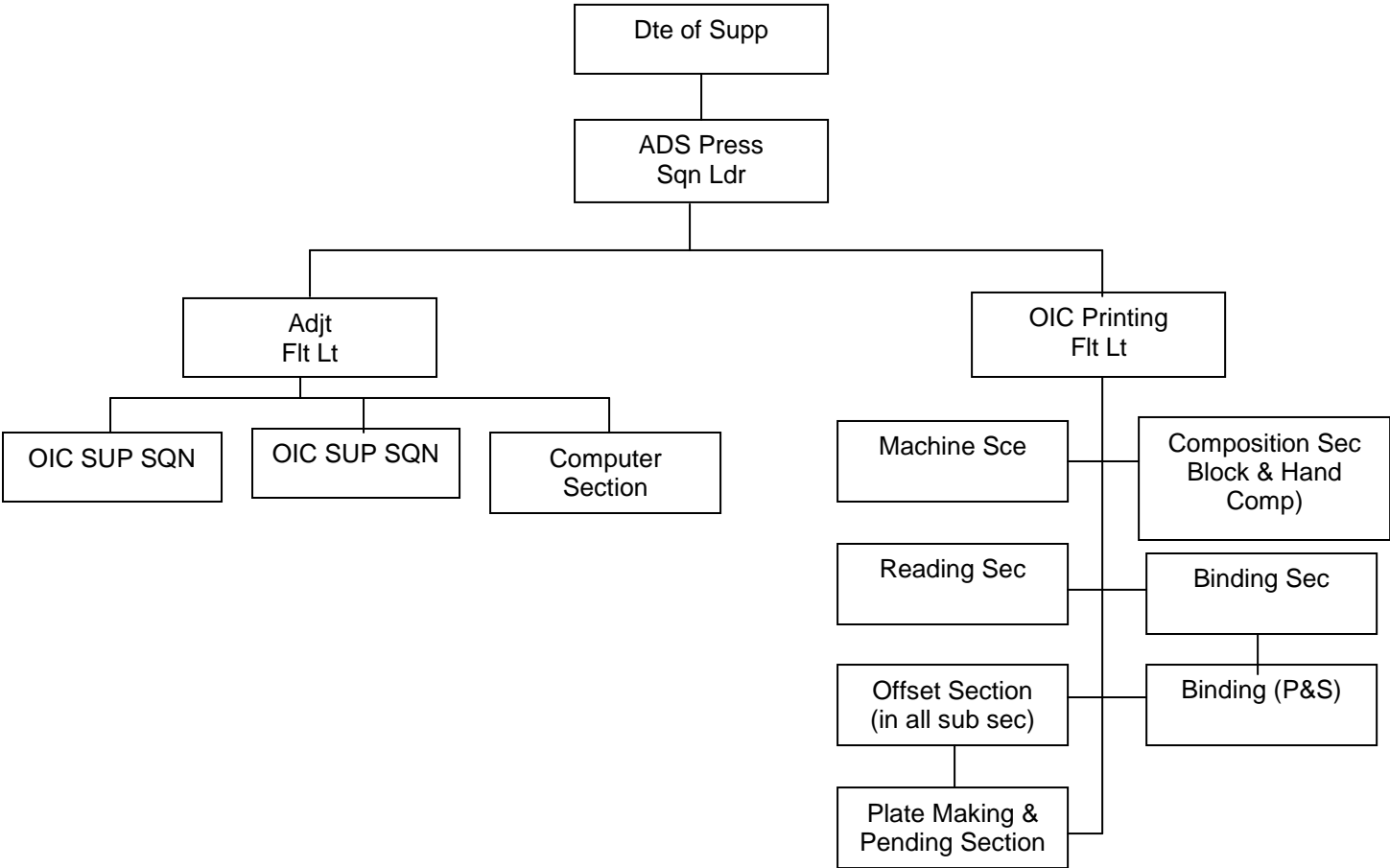
ORGANIZATION CHART OF 203 MU, BAF

Organization of Base Supply Squadron

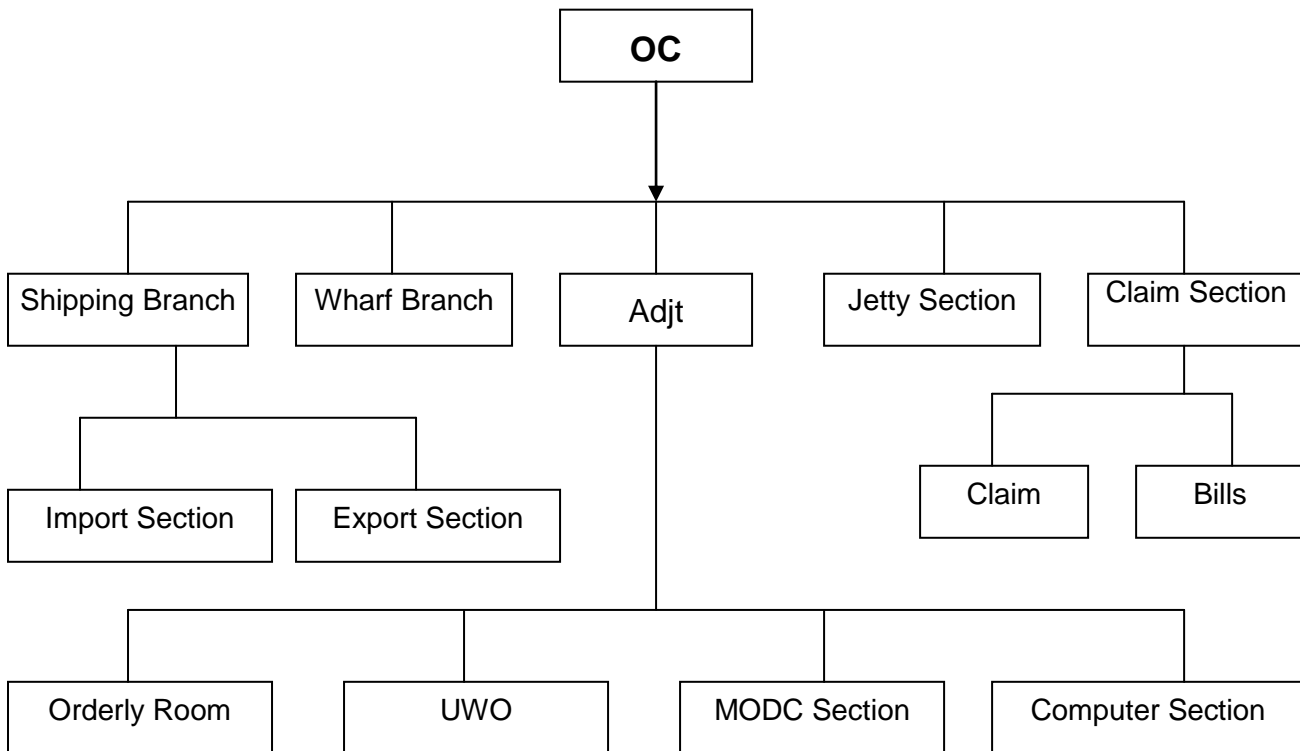
6. In accordance with new system, logistic officer of Base Sup Sqn is responsible for overall management, control, technical supervision, inspection and evaluation of base supply items and accountable for all property of base supply stock record accounts. He is also responsible to provide technical assistance to all activities on supply matters. The lay out of the organization of Sup Sqn is given below:

ORGANIZATION CHART OF BASE SUP SQN

ORGANIZATION CHART OF BAF PRINTING PRESS



ORGANIZATION OF BAF EMBARKATION UNIT



SELF ASSESSED EXERCISE– 1

- Q1. Draw the Org Chart of Sup Dte at Air HQ.
- Q2. Draw the Org Chart of BAF Embarkation Unit.

TOPIC-2

ROLE OF BAF LOGISTIC SYSTEM

Introduction

1. Logistic Organization of BAF plays very important role in the maintenance activities of BAF. They are to ensure availability of right type of item to the right people at right quantity at the right time and at the right place. Logistic organization is responsible for the provision of all eqpt and supplies, required by the services other than Works, MES, Medical and Dental stores. Sometimes, they are also responsible to provide limited range of items to the other two sister services.

Organizations of Logistic System at Air HQ

2. Dte of supply at Air HQ is the nerve centre of the logistic system in BAF from where all activities are directed. The organization set up of the Dte of Sup has been shown in the Topic-1.

3. **D Sup.** Director of supply is the advisor to the COAS and responsible to him through ACAS(M) mainly for :

- a. Direction and control of provisioning of all ranges of BAF stores and supply administration.
- b. Control of printing and policy direction of the BAF press.
- c. Preparation of supply plans to meet Air Staff requirement.
- d. Scrutiny of supply establishment.

4. D Sup is assisted by three Deputy Directors. Their duties and responsibilities are narrated in the following paragraphs:

5. **DDS (Admin).** Responsible to Director of Supply for:

- a. Liaison with other directorates on maintenance of policies, establishment, manning, levels, training and works services.
- b. Scrutiny of syllabi for training of log officers, airmen and civilians.
- c. Routine administration of the directorate of supply.
- d. Matters relating to local services on the bases/units.

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- e. Co-ordination and progress on Inspection Report and Air Board decisions and other reports relating to supply matters.
- f. Specialist comments on board of inquiry, formal investigations and BofO proceedings.
- g. Matters relating to printing policy, stationery, forms and publications.
- h. Issue of policy instructions regarding rations and canteen facilities.
- j. Preparations of supply budget and maintenance of expenditure and commitment records.
- k. Allotment of local purchase funds to base/unit and screening of local purchase returns.
- l. Processing cases of write off.
- m. Processing regularization of audit objections.
- n. Preparation of AFIs and AFOs and issue of equipment policy instructions/ letters.
- p. Interpretation and revision of supply regulations.
- q. Liaison with oil companies regarding supply of POL.
- r. Provisioning of publications and forms.
- s. Provisioning and distributions of stationery items.
- t. Matters concerning plans, their implementations and progress.
- u. Issuing policy instructions regarding allotment of MT vehicles and bi-cycles.
- v. Issuing policy instructions regarding provisioning of fuel.

6. **DDS (Program)**. Responsible to D Sup for:

- a. Execution of programming policy.
- b. Programming of aircraft helicopters, glider, aero engines and other major equipment.
- c. Programming of initial and special requirements.
- d. Formulation of initial requirements of equipment and procurement of all major and end items.
- e. Liaison with agencies concerned with programming of equipment.
- f. Dealing with matters relating to programming of aircraft, aero-engine and helicopters.
- g. Maintaining records of progress of programme.
- h. Programming spare parts for aircraft, aero-engine and helicopters.
- j. Programming of aero space ground equipment.
- k. Maintaining AOG/A-AOG demand records.

7. **DDS (Prov)**. Responsible to D Sup for:

- a. Dealing with policy relating to replenishment provisioning of tech and non-tech equipment except ac and their spares and progress there of.
- b. Liaison with DGDP regarding progress of indents.
- c. Recommending local purchase of equipment within financial powers laid down in current regulations.
- d. Laying down programme for provisioning review of equipment.
- e. Obtaining approval of indents from CFA.
- f. Processing the cases with AFD for administrative approval.
- g. Purchasing of items against priority demand (except AOG/A-AOG) which are not available in the local market.

Organization of Logistic System at Base Sup Sqn is the main sup organization in a typical base, which otherwise may be termed “The Log Hub” in a base.

8. OIC Sup Sqn looks after the Base Sup Sqn within the framework of Maint Wg. OIC Sup Sqn is responsible for overall management, control, supervision and evaluation of Base Sup Sqn. He is also accountable for all property of Base Sup Sqn. He is to maintain close liaison with the users. He is to assist them to anticipate their requirements to ensure smooth and efficient working.

Organization and functions of Logistic Agencies

9. Apart from those, the following logistic agencies have been established in BAF at different places:

- a. Supply provisioning section – Air HQ Dett.
- b. Embarkation Unit, BAF.
- c. 201 Maintenance unit, BAF.
- d. 203 Maintenance unit, BAF.
- e. 202 Maintenance unit, BAF.
- f. BAF Printing press.

Supply Provisioning Section

10. Supply provisioning section is one of the dett of Air HQ and directly placed under control of D Sup, headed by a Deputy Director. The main responsibilities of SPS are:

- a. To make accurate assessments of future requirements of BAF.
- b. To raise covering requisition for requirements and transmit to procurement agencies for contract action.
- c. To ensure that eqpt reaches MU in time and
- d. To assist the logistic system for smooth working within the limits of current policy.

In assessing future requirements, SPS is guided by information supplied to them from various sources. The co-operation of all concerned is, therefore, essential to execute provisioning responsibilities properly.

11. **Embarkation (Unit) BAF.** BAF Embarkation unit is functionally placed under Dte Sup and admin support given by BAF Base ZHR. The main functions of Emb (U), BAF are to receive BAF stores from abroad and despatch stores abroad by sea. Any delay in receiving or despatching of stores may result damage and huge financial loss to Air force as a whole.

12. **201 MU, BAF.** 201 MU is functionally controlled by Dte of Sup. This unit is mainly responsible for receipt, storage and issue of the BAF stores except ammo and explosives to different bases/units. They undertake special responsibilities like:

- a. Receipt of all serviceable and repairable BAF eqpt.
- b. Issue of modification kits.
- c. Receipt, storage and issue of all controlled items.
- d. Receipt of BAF stores from abroad as well as despatch abroad by Air.
- e. Issue of eqpt to the agencies out side BAF.
- f. Provide all eqpt support for BAF contingents working under UN

13. **203 MU, BAF.** 203 MU is functionally placed under Dte of Sup and admin control under Base KTL. Its main functions are to store BAF ammo and explosive and their subsequent accounting, issue and receipt. They, in fact, function like 201 MU in respect of ammo and explosives.

14. **202 MU,BAF.** 202 MU is located at BAF Base ZHR and functionally comes under the control of Dte Sup. This is established in Chittagong to provide specific logistic support, for the aircraft and helicopters positioned at Base ZHR.

15. **BAF Printing Press.** BAF printing press is located at Kurmitola and directly placed under Dte of Sup. This press is established for printing of all publications, Manuals, pamphlets, charts, inspection cards, APs/AFOs, Maps, Note pads, BAF Magazines like Biman sena, BLUE Angel, Academy Review and Trg Aid materials related to BAF. BAF printing press is strictly prohibited to make any private job. Meena Bazar, Shaheen School, Offrs' mess and Non public fund printing and binding jobs are done in the press on payment basis.

Reference: AP 830 Vol 1 Part 1 L/L A 3/1

SELF ASSESSED EXERCISE- 2

Q1. Describe the role of 201 MU BAF.

ANSWER TO SELF ASSESSED EXERCISE- 2

A1. 201 MU is functionally controlled by Dte Sup. This unit is mainly responsible for receipt, storage and issues the BAF stores except Ammo and explosives to different Bases/Units. They undertake special responsibilities like:

- a. Receipt of unit returns of all serviceable and repairable BAF eqpt.
- b. Issue of modification kits.
- c. Receipt, storage and issue of all controlled items.
- d. Receipt of BAF store from abroad and as well as despatch of abroad by air.
- e. Issue of eqpt to the agencies out side BAF.
- f. Provide all log support for BAF contingents working under UN.

Q2. What all are the main responsibilities of SPS?

Q3. Describe any 05 responsibilities of D D S (Admin).

TOPIC-3

GLOSSARY OF EQUIPMENT TERMS

Introduction

1. A uniform language of supply is one of the principal elements necessary for simplicity and effectiveness of operation in large logistic management system. To understand this system, there are certain logistic terms which the logistic personnel must be familiar with to make the logistic operation easier.
2. The literal meaning of “Glossary of Terms” is a collection of special or technical words expressing definite object or idea.

Terms Used

3. The terms commonly used in connection with logistic administration and accounting are explained below:
 - a. **Active Items.** Active item is one in respect of which there has been an issue during past twelve months or on which there are outstanding “Dues-in or Dues-out’.
 - b. **Carton Unit Quantity (CUQ).** The quantity of an item placed in primary packages as a unit of issue to consumers.
 - c. **Container.** A package, crate, carton, bag, barrel drum, box, cylinder, bottle or other form of package in which equipment is packed is called container.
 - d. **Contract Loan.** The issue of equipment to a contractor for repair, conversion or modification in accordance with the condition of a contract.
 - e. **Controlled Item.** These are items of equipment which for provisioning and issue purpose are subject to direct control by Air HQ. Such items are determined by their nature only and not by the supply position. For example, small arms may be controlled although there is no shortage.
 - f. **Dead Item.** Dead item is one in respect of which there has been no stock, receipt, issues, dues-in or dues-out during past one year.
 - g. **Deposit Loan.** The issue of equipment to a contractor for the use in connection with service performed by him under contract, for which the contractor accepts full responsibilities of the loan while in his care.
 - h. **Dues In.** The quantity of an item previously demanded but not yet received.
 - j. **Dues Out.** The quantity of an item demanded by stock holding unit which cannot be met until the receipt of supply.

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- k. **Departmental Expenses.** Expenses incidental to the receipt, storage, packing, issue and transportation of equipment which are not included in the prices shown in the price vocabulary of BAF equipment (AP 1086). The preface to AP 1086 Book No I to be consulted for the rates of DE to be charged.
- l. **Embodiment Loan.** The issue of equipment to a contractor for embodiment in an article under manufactures modifications, conversion or repair in accordance with the terms of a contract which provided for the issue without charge, of such equipment of embodiment.
- m. **Equipment.** Equipment is machines, stores and supplies (other than meteorological, works, MES, medical stores, office machinery and stationary) used by BAF. Classes of equipment are defined as follows:
- (1) **Class 'A'.** Class 'A' items are those items of equipment which remain on charge and cannot be replaced except on return to store. Repairable items which are beyond the capacity or authority of the unit to repair are to be returned to the appropriate MU as category R/D.
- (2) **Class 'C'.** Class 'C' items are those items of equipment which are consumable in use or are incapable of being economically repaired.
- n. **Forecast Factor.** The ratio between the strength of ac or personnel etc or effort during the past and the expected strength or effort during the future.
- p. **Inactive Item.** An inactive item is one which does not comply with the definitions of either an active or a dead item.
- q. **Issue Order.** An instruction to issue equipment other than against a demand.
- r. **Low Stock.** A term in use at stock holding depots to denotes the level below which depots stocks should not be allowed to fall without specific authority.
- s. **Machine.** A comprehensive term used for supply and accounting purposes only, to include airframes, aero-engines, MT vehicles and marine craft .
- t. **Maintenance Equipment.** Equipment, whether consumable or non-consumable, which is required for the repair, maintenance, overhaul, test preservation, or operation of authorized "A -in-U" equipment.
- u. **Minimum Establishment.** A level below which serviceable stock, plus dues-in, minus dues-out of equipment should not be allowed to fall.
- v. **Maximum Establishment.** A level at which a unit is allowed to hold stocks of equipment for its operational efficiency.
- x. **Non-Recurring Issue.** A provisioning term denoting issues to meet a requirement not expected to recur.

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- y. **Ordinary Loan.** The temporary issue of equipment for a specific purpose and period and which is to be returned in the same condition (except fair wear & tear) and description as lent.
- z. **Packing.** The treatment of equipment by preservation, identification and packing in predetermined quantities to ensure its safe arrival in the hand of the eventual user in a fully serviceable condition.
- aa. **Provisioning.** To calculate the probable or actual extent of a requirement and to make available the equipment to meet the requirement.
- ab. **Recurring Issue.** Issues which are anticipated will be repeated.
- ac. **Repayment Loan.** The issue of equipment to a contractor or other individual for which a hire or rental charge is raised during the period of loan.
- ad. **Review.** A statement of issues, stocks, dues-in, dues-out, and establishment, used for provisioning purposes to determine whether further stocks should be obtained, disposals made or quantities already dues-in reduced or cancelled.
- ae. **Running / Standing Contract.** A contract specifying equipment to be supplied or services rendered, at any time during an agreed period as and when demanded in accordance with terms and conditions of the contract.
- af. **Shipment.** A detail list of all equipment loaded in to a particular ship.
- ag. **Stores.** All articles other than machines shown in the BAF vocabulary, schedules or otherwise authorized to be held.
- ah. **Store Inward Book (SIB).** A record of all external receipts at a unit.
- aj. **Store Outward Book (SOB).** A record of all external issues from a unit.
- ak. **Supplies.** Food stuff, domestic fuel (wood or coal), light (electricity) water, petroleum products, oil, lubricants and medical comforts etc obtain from BASC, MES and medical stores depots.
- al. **Strike off Charge.** The recording of an issue in an accounting documents when the issue is not in respect of a loss requiring write off.
- am. **Task.** Special requirement (i.e. on initial issue) issued by an ED in circumstance when the requirement cannot effectively be demanded.
- an. **Transcription.** The inability part of an external demand which is passed by an ED to appropriate provisioning facility for supply section.
- ap. **Transfer.** An issue not involving financial recovery, where the custody of the equipment remains with BAF.

ar. **Write Down.** The accounting procedure for reducing the condition (i.e. lessening the value) of an item damaged not due to negligence of any individual. Such adjustment of cost of damage is termed as write down.

as. **Write off Charge.** The posting of an issue in an accounting document in respect of a loss (not due to negligence of individual) which is not inherently connected with the condition of Air Force operation.

Ref : AP-830, Vol- I, Part- I, Leaflet A –2/1.

SELF ASSESSED EXERCISE– 3

- Q1. What do you understand by the controlled item?
- Q2. What is the difference between write off and write down charge?
- Q3. What do you understand by the word 'Provisioning'?

TOPIC-4

SCALE OF EQUIPMENT AND ACCOUNTING RECORDS

Scale of Equipment

1. Introduction. Different units / Bases play different role. Hence the requirements of the units /bases are different from one another according to their missions, nature of job and work load. From time to time, Government authorizes the holding of these equipments in flight/sections to carry out day to day works. These lists of equipments are known as 'Scales'.
2. Purpose. The items are, therefore, included in scales which will serve the following purpose:
 - a. Bases/Units will come to know about its correct requirements, any addition or deletion, when required, are to be forwarded to Air Headquarter.
 - b. Supply branch from these scales will come to know BAF needs of the items included many of which have erratic pattern of consumptions provisioning can than be made by supplier for such items.
3. Maintenance. and Use. Scales must always be maintained in an up-to-date condition by all concerned. Users while demanding listed items must give the reference of the scale on relevant documents and also must clearly state whether the items are first time being drawn of replacement of scaled items as similarly so is also to ensure that all issue & return vouchers with variation is not to be approved by him.

Question

1. What is a scale?
2. What is the purpose of scale?

Accounting of Equipment in Use/Accounting Records

4. **Introduction**. Some BAF equipment during their use in flight and section or by individuals remains on charge of respective flight /section or individual. They are normally class 'A' stores items which are consumed when used in flight/sections except a few do not remain on charge of flight / section individual. The documents on which the accountable items remain on charge of a flight / section / individual are briefly described in subsequent paragraphs.

5. **Flight Inventory (F-37)**. All class 'A' items of equipment use in different flight / sections remain in charge of a flight inventory (F-37). Class 'A' items are demanded in accordance with laid down scales. When class 'A' items become u/s these are either returned to supply squadron or exchanged. If replacement can not be made then it is returned to store to clear flight inventory. No unserviceable stock should remain on charge of an inventory except items on instructional purpose.

6. Inventory holders are to be appointed by the OC through BRO. The inventory holder is responsible for safe custody and proper use of the items held on charge.

7. **Articles in Use Lager (F-670)**. All class 'A' items which remain on charge of flight inventory (F-37) when in use are also accounted for in EAS on F-670. It is consolidated and true record of all class 'A' items held on charge of all flight section inventories. All the ledgers are signed by accountant officer and stamped with the unit stamp. Entries are made in ink under the date of the transaction. No accounting is to be made without a supporting voucher. Incorrect entries are not to be erased but are to be ruled through and initialed by officer in charge equipment account. The entries are not to be ticked in colored pencil. The officer in charge EAS is responsible for safe custody of F-670.

8. **Inventory of Equipment MT Vehicle (F-748 & 1670)**. It is standard list of equipment published for each type of vehicle and the items included in the list are tools and accessories, all easily removable parts not essential to the mechanical completeness of the running vehicle and fitted, chassis equipment not normally detachable but easily broken or attractive.

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9. In addition, F-1670 is published for each type of specialist vehicle, and contains the authorized scale of equipment peculiar to the technical function of the vehicles.
10. These inventories constitute the authority to demand all items shown of them. Whenever the vehicle is transferred from one unit to another, these inventories are brought up-to-date and dispatched with the vehicle.
11. Inventory of Aircraft (F-10001). This aircraft inventory used for checking and accounting item which are readily removable or attractive nature. An aircraft inventory is prepared by logistic officer from standard aircraft checking lists in single copy.
12. Issue and Withdrawals (F-464). F-464 is prepared in duplicate by logistic officer for aircraft and MT vehicles. The original copy of F-464 maintained in EAS and duplicate copy along with aircraft or MT vehicle inventory forwarded to the officer holding the aircraft or MT vehicle on charge. All issues and withdrawal of aircraft/ MT inventory items are recorded in this form. On transfer to another unit this forms are closed at the old unit and newly prepared at the new unit.
13. Flight Petrol and Oil Book (F-361 & F-10044). The record of consumption of petrol / oil in flight /section is maintained on F-361 and F-10044 respectively.
14. Record of Airmen Kit (F-667). Clothing issued to airmen are recorded on F-667 raised in duplicate. Entries in F-667 are made in ink on first preparation. F-667 is stamped with unit stamp after signature by logistic officer. The original is handed over to the individual for retention and duplicate one is forwarded to EAS. All subsequent transactions are recorded by logistic officer on the original copy and by EAS on duplicate copy.
15. Flying Clothing Card (F-667B). Issues of clothing, arms and accoutrement to officers either on loan or pre payment is maintained by means F-667B, prepared by EAS in two copies for each officer and aircrew. The original copy of F-667B is kept in EAS and duplicate is given to individual.
16. Expense Books. This manuscript register maintained in flight / section to keep the record of consumption of 'C' class stores such as timber, fabric, cleaning materials etc.

Ref: AP 830 Vol- I, Part- I, & II, L/L B 2/3, B-10/1, B-11/1, B-18/1, B-18/2 & AFO 67-73.

Self Assessed Exercise

Q1. Describe in short about F 37.

Q2. Write down the names of F- 37, F- 670, F-748, F-10001, F-464, F-361, F-10044 & F-667B

Q3. What do you understand by Expense Book?

TOPIC-5

ISSUE OF CLOTHING TO CADETS AND RECRUITS

Issue of Clothing to Cadets

1. **Entitlement.** In suppression of AFI 8/64, cadets are issued with uniforms as per the scale laid down in AFI 9/70 & JSI 3/2010 on F.674 out of the tropical allowance.
2. **Allowance.** All issues are to be made in kind subject to the monetary limit of Taka 18455.00 for cadets of all courses.
3. **Initial Issue.** A list of articles shown at appendix 'A' to AFI 2/82 is prepared and attached to F.667-B of the individual maintained in EAS. Issues made to cadets from time to time are struck through the list and entry is made in F.667-B along with issue voucher no. and date.
4. **Maintenance of a Register.** Base Supply Squadron is to maintain a manuscript register with separate pages allotted to each cadet for listing the items issued from time to time on F.674. The register is to contain the following information:
 - a. Details of items.
 - b. Issue voucher number.
 - c. Date of issue.

Replacement Issue

5. Free exchanges of clothing and other necessities to cadets are not permitted. Replacement when required is to be effected on prepayment basis by means of F.603.

Unit Equipment

6. Articles shown below are to be held on unit charge for issue to cadets during stay at the Training Institute and will be taken back after completion of their Training.

<u>Nomenclature</u>	<u>Qty</u>
a. Blankets	4 Ea per cadet
b. Mattress	1 Ea per Cadet
c. Sheet Cotton single	4 Ea per cadet
d. Pillow	2 Ea per cadet

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e. Pillow Slips	4 Ea per cadet
f. Towel hand	4 Ea per cadet
g. Towel Bath	3 Ea per cadet
h. Belt Waist	2 Ea per cadet
j. Slings Rifle	2 Ea per cadet
k. Net Mosquito	1 Ea per cadet
l. Coat Great Airmen Type	1 Ea per cadet
m. Boots Rubber Knee	1 pair per Cadet
n. Suits combination	1 pair per Cadet

7. Replacements necessitated through Fair wear and tear will be effected by free issues in kind in exchange of similar unserviceable items mentioned in para 6 above, subject to the life specified in AFO 67-63.

Ref: AP 830 Vol 1, Part II and AFI 2/82.

SELF ASSESSED EXERCISE- 5

Q1. Can you name some of the items issued to cadets free of charge against unit inventory while undergoing training?

Q2. What is the monetary limit for cadets of all courses?

ANSWER TO SELF ASSESSED EXERCISE-5

A1. Some of these items are shown below which are issued against unit inventory keeping life in view as per AFO 67-63.

- a. Blanket.
- b. Sheet Cotton.
- c. Pillow.
- d. Pillow Slips.
- e. Net Mosquito.

- f. Coat Great (Airmen Pattern).
- g. Boot Rubber Knee.
- h. Suit Combination.
- j. Belt Waist.

A2. All issues are to be made in kind subject to monetary limit of Tk 18,455.00 as per JSI 3/2010.

Initial Issue of Clothing to Recruits

8. **Introduction.** Recruits are entitled to be issued with clothing and necessities free of charge as initial issue in accordance with the scale laid down in AFI (B) 1/82 at the time of joining the service.

9. **Procedure of Initials Issue.** Flight commander is to prepare F-665 (demand and issue voucher) for free issue of clothing etc. in single copy giving the following information:

- a. Name of the Base / Unit.
- b. Name of the Flight or Section.
- c. Particulars of the airmen concerned.
- d. Date of raising demand.
- e. Signature of the Flight Commander as officer demanding.

10. Date and time is to be fixed and agreed by LO and promulgated in BRO. F.665 is to be passed to LO at least 2 days in advance of date fixed for making issues. At the appropriate time and date airmen are to be marched to supply sqn for receiving clothing and necessities.

11. **Action by Logistic Officer.** Log Offr on receipt of F-665 form the Flight/Section Commander is to arrange the necessary clothing required to be issued and is also to inform the Camp Tailor to be present at the time of issues to take copies of F-350 on which the particulars of the airmen and necessary articles requiring alteration are to be entered. Following action is also taken:

- a. Issues to be made at the appointed time and date in presence of witnessing officer who is to ensure that
 - (1) Correct quantity is entered in the appropriate column of F-665 against the individual's name.
 - (2) Items requiring minor alteration are detailed on F-350.

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- b. Obtain signature of the individual against his name of the items he has been issued with.
- c. Delete all blank column in red ink.
- d. Witnessing officer is to sign F-665 as witnessing the issue and initial on all alteration or deletion in red ink.
- e. Prepare F-667 (Record of airmen kit) in two copies. He is to handover original F-667 to the individual and the duplicate will be forward to EAS for retention.
- f. Pass F- 665 to EAS through internal register after all nec actions.

12. **Subsequent Initial Issues.** The flight or Section Commander is to prepare a demand on F-674 for subsequent initial issues for airman in accordance with the normal internal demand procedure on F-674 only endorsed for F-667 action.

13. On issue of the required item each airman is to sign the relevant F-674 as acknowledgement of receipt. F-667 original copy is to be endorsed to this effect by equipment officer and duplicate by EAS. Entries being made by endorsement of voucher numbers and incase of returns, by signature of officer concerned.

Questions

- 1. What is the authority for scale of clothing for airmen?
- 2. What is the form used for subsequent initial issues to airmen?
- 3. What is the title of F-665?

Reference: AP 830 Vol- I,Part-II L/L B 18/2 & AFI 1/82.

TOPIC-6

ISSUE OF CLOTHING TO OFFICERS/SECONDED OFFICERS

Flying Clothing Card

1. Items of personal and public clothing and accoutrements issued to officers are to be accounted for on F.667B. The following procedure is adopted for keeping the record of such items.

Preparation of F 667B

2. These cards are prepared for every individual officer during his cadetship from duplicate copies of issue voucher (F.674) on which clothing and necessities are issued during training at BAF by the accountant officer in 2 copies.

Use of the Card

3. Though the F.667B is known as “FLYING CLOTHING CARD”, it is required to be used for flying as well as for other clothing and necessities issued to officers. This form is used for aircrew and in the following occasions:

- a. Clothing and necessities issued to officers.
- b. Flying clothing issued to aircrews.
- c. When arms are issued to officers.
- d. Any item previously issued and subsequently required to be returned to store as :
 - (1) No longer required.
 - (2) U/S and cannot be used.

Custody of Card

4. The duplicate card is kept by the individual while original is always kept by the accountant officer in EAS for safe custody and is forwarded to the new Unit/Base by accountant officer by registered post when individual is posted out from his old Unit/Base.

Ref: AP 830, Vol 1, Part II, Leaflet B 18/1.

Issue of Public clothing to Officers

5. The following nature of clothing and necessities form a part of public clothing for officers :

- a. Flying clothing.
- b. Accoutrements (Dress/Military Equipment).

6. All issues are to be effected on F.674 duly endorsed as for F 667B action and full particulars of the officer concern. Authority of scale is also to be shown on F 674. BSO is to make issues in normal manner. F 667B action is to be completed by means of duplicate copy of F 674.

Return

7. Items are to be returned back on F.675 when the occasion for their return arises. F.675 is to be endorsed as for F.667B action and the reason for return is also to be shown.

Exchange

8. Exchanges are to be effected on F.673 on which no accounting action is required to be shown, except in case of items bearing serial number. F.675 and F.674 are to be used for their returns and fresh issues respectively.

Issue of Clothing to Seconded Officers to BAF

9. Officers seconded to BAF will be provided items of uniforms in kind on the following basis :

- a. Officers seconded to BAF before drawing out fit allowance from their parent service will be issued with items shown at appendix "B" to AFI 2/82 subject to the monetary limit.
- b. Officers seconded to BAF after drawing out fit allowance in their parent service will be issued items of uniform as per appendix 'B' less duplicate items, if any.
- c. Lady doctors of AMC seconded to BAF will be issued with items of uniform as per procedure laid down in AFI 94/52 less duplicate items, if any.

Ref : AP 830, Vol I, Part II, Leaflet B18/1 and AFI 2/82.

SELF ASSESSED EXERCISE- 6

- Q1. a. How is F.667B prepared?
- b. In how many copies F.667B is raised?
- Q2. What are the public clothing items that can be issued to an officer of BAF?
- Q3. On what basis items of uniform are to be issued to officer seconded to BAF?

ANSWER TO SELF ASSESSED EXERCISE-6

- A1. a. F.667B (Flying Clothing Card) is prepared for every individual officer during their cadetship form duplicate copies of issue voucher (F.674) by the accountant officer to record all issues of clothing and necessities.
- b. In 2 copies
- A2. The following types of clothing and necessities can be issued to an entitled officer as a part of public clothing items:
- a. Flying Clothing: Aircrews.
- b. Accoutrements (Dress/Military equipment): With specific duties that necessitate issue of such items.
- A 3. Officers seconded to BAF will be provided items of uniform in kind on the following basis:
- a. Officers seconded to BAF before drawing out fit allowance from their parent service will be issued with items shown at appendix 'B' to AFI 2/82 subject to the monetary limit.
- b. Officers seconded to BAF after drawing out fit allowance from their parent service will be issued items of uniform as per appendix 'B' to AFI 2/82 less duplicate items.
- c. Lady doctors of AMC seconded to BAF will be issued items of uniform as per procedure laid down in AFI 94/52 less duplicate items if any.

TOPIC-7

VALUABLE AND ATTRACTIVE ITEMS

General

1. The list of equipment attached as ANNEX 'A' is the Air Headquarters list of valuable and attractive items. The special storage and accounting regulations for such items are detailed below.
2. Additionally to the Air Headquarters' list, items proved by experience to be specially attractive are to be included in the regulations.

Responsibility

3. The logistic officer is responsible for ensuring that consignments and main stocks of valuable and attractive items are adequately safeguarded from the time of first receipt until final despatch the unit.
4. The logistic officer is to detail an NCO by name to be responsible for all stocks of valuable and attractive items, and for transactions connected therewith. Should an NCOIC Valuable & Attractive Store be absent for any unforeseen reason the log officer is immediately to carry out a stocktaking, when another NCO is detailed to take over the responsibilities in such circumstances, he is to be present at the stocktaking.
5. Inventory holders are responsible that valuable and attractive items in use are adequately safeguarded whilst in their custody.

Storage

6. Stocks of valuable and attractive items are to be stored in buildings, rooms or cupboards etc, set aside for this purpose not otherwise used.
7. The windows of Valuable and Attractive Stores are to be with iron bars, and doors are to have two separate locks. In store rooms, and in flights and sections, valuable and attractive items are to be stored in locked cupboards, chests etc.
8. Written instructions for safeguarding of keys to the Valuable and Attractive Stores are to be made by the log officer and promulgated in Base Routine orders. When the keys are handed in, after working hours, to a guard room or similar place of custody, they may be drawn only by the NCOIC. Valuable and Attractive Stores (who is to be named in the instructions) is to be placed in locked accommodation separate from the ordinary key board. In the event of it being necessary to open the Valuable and Attractive Store during non-working hours, the keys may be drawn by the Duty Officer but he is to report the occurrence to the log officer in the next morning.

Documents, Vouchers and Records

9. All copies of all documents connected with the demanding, receipt, issue and despatch of valuable and attractive items are to be prominently annotated at the top with the letters "V&A" in red ink.
10. When valuable and attractive items have manufacturers/ BAF serial numbers, these are to be recorded on all documents, vouchers and records connected therewith.
11. The NCOIC Valuable and Attractive Store is personally to maintain the stock record cards of the items in his custody.
12. At equipment depots, the bin stock and location cards and the stock records are to be reconciled monthly.

Stocktaking

13. An independent stocktaking of the complete range of valuable and attractive items is to be carried out at least once every month.

Receipts

14. The NCOIC Valuable and Attractive Store is to personally collect all registered parcels containing valuable and attractive items from the registry.
15. On receipt of a consignment of valuable and attractive equipment at a unit, the NCOIC Valuable and Attractive Store is to be notified immediately and is at once to clear the consignment. If, on opening a container the relative documents of which are not annotated "V&A", it is found to contain valuable and attractive items, the NCO is to be informed and is to take charge of the equipment.
16. If containers holding valuable and attractive items cannot be unpacked on receipt, they are to be kept in the Valuable and Attractive Store until unpacking takes place.
17. Only the signature of the NCOIC Valuable and Attractive Store is to be accepted in Column 12 of the Equipment copy of the external receipt voucher register, as accepting custody of the consignment.
18. Where damaged containers are received, or pilferage is known or suspected to have occurred, the containers are to be opened in the presence of the logistic officer. The BAF police are to be called immediately to investigate and report on all instance of pilfering.

Returns to Store from Use

19. The NCOIC Valuable and Attractive Store is to personally receive all items of valuable and attractive equipment returned to store from use in flights and sections and is to sign as receiving on all Forms 675.

Packing

20. Valuable and attractive items are to be packed in separate containers. The containers are not to be packed in outer containers which include items not of a valuable and attractive nature.

21. The packing of all valuable and attractive items is to be witnessed by the NCOIC Valuable and Attractive Store, and logistic officer, who is to sign a certificate, in the form, on the reverse of the red (consignee's receipt voucher) and original black copies of the relevant vouchers :

Certified correctly packed byin my presence.

Date Signature and Rank.....

Despatch

22. Each despatch of a consignment of valuable and attractive equipment is to be intimated to the consignee by signal, and telephonic message.

23. Whenever practicable, valuable and attractive items are to be despatched by registered parcel post, are being taken that the current registration fee in relation to the value of the contents of a package is paid and that the Post Office Regulations regarding despatch are complied with.

24. Only in exceptional circumstances are valuable and attractive items to be despatched by civilian road transport.

25. When valuable and attractive items and in particular clocks, maps, time pieces, coins, gold, silver, bank notes, title deeds, glass of all kinds are despatched by rail, and the value of the contents of anyone container is Tk. 100/- or more, they are to be declared verbally to the railway authorities when the items are handed over each container being declared separately. The nature and value of the contents are to be clearly annotated on the appropriate carrier's note.

Ref : BAF Vol. I. Part-I, Leaflet 'A' 15/1, 15/2.

LIST OF VALUABLE AND ATTRACTIVE ITEMS

<u>Vocab. Section</u>	<u>Description</u>
3D	Wheels Grinding.
5A	Torches Electric
5J	Batteries below 5 volts.
6A, 6B, 6C, 6E, 10A, 10AF, 10K.	Clocks, Watches, Unit Watches, Binoculars Barometers.
10D, 16E, 21B, 63C, 106A, 106B	Thermometers (Cabin Heater) and Thermometer other types.
7A, 7B, 7G, 7H, 7Q, and 107B	All complete arms and spares
8B	Gun Sights.
12C	All ammunitions (Small Arms).
14A, 114A	Cameras, Lenses.
14M, 14K	Printing Papers & Films.
14C, 114C	Projectors.
15A, 15D	All types of Parachutes.
22G	All Clothing material: Spectacles of all types.
32	All Fabrics.
33G	Anodes Silver
37B	Sparking Plugs – All Types.

SELF ASSESSED EXERCISE- 7

Q 1. How V&A items are to be stored?

Q 2. How V&A items are packed?

ANSWER TO SELF ASSESSED EXERCISE-7

A 1. Stocks of valuable and attractive items are to be stored in buildings, rooms or cupboards etc, set aside for this purpose. The windows of V & A Stores are to be with iron bars, and doors are to have two separate locks. In store rooms, and in flights and sections, valuable and attractive items are to be stored in locked cupboards, chests etc.

A2. Valuable and attractive items are to be packed in separate containers. The containers are not to be packed in outer containers which include items not of a valuable and attractive nature. The packing of all valuable and attractive items is to be witnessed by the NCOIC Valuable and Attractive Store, and logistic officer, who is to sign a certificate, in the form, on the reverse of the red (consignee's receipt voucher) and original black copies of the relevant vouchers :

Certified correctly packed byin my presence.

Date Signature and Rank.....

TOPIC-8

STOCK TAKING PROCEDURE (F- 33)

Introduction

1. Stock taking is one of the methods of supply management. It involves the following:
 - a. Counting of the items according to a pre-planned programs.
 - b. Comparing the physical balances with SRC balances.
 - c. Adjustment of discrepancies.

Frequency of Stock Taking

2. The stock taking of all items held on charge is taken according to the following frequency:
 - a. **At Base.** The stock taking of all items held on charge is to be taken once during each financial year while stock taking of V & A is carried out quarterly.
 - b. **At Depot.** The stock taking of all items except V & A is to be carried out once in two years while stock taking of V & A is carried out six monthly.

Types of Stock Taking

3. Following are the different types of stock taking carried out at Bases/Depot :
 - a. **Continuous Stock Taking.** The check of stock is carried out by section of the vocabulary and the program thus prepared to cover the complete financial year.
 - b. **Fixed Stock Taking.** The check of entire stocks is to be carried out at any one time convenient to the Base/Depot. Provided that in case of Base at least nine months have elapsed since the date of last stock taking.

Preparatory Steps

4. In case of continuous stock taking the Base Log Officer is to check out a programme each financial year so as to ensure completion of stock taking by 30th April in order that financial adjustment be made in regard to the all actions of budget expenditure before the commencement of new financial year. A pre-survey is carried out by stock taking party to ensure:
 - a. That all vouchers are cleared and red lines are drawn on SRCs.
 - b. That the stores are ready for stock taking.

Procedure of Stock Taking

5. The following procedures are to be followed for preparation of F-33:
- a. The officer conducting the stock taking is to prepare a certificate of stock taking (F-33) in two copies showing unit and date and vocabulary section involved.
 - b. If the stock taker discovers any article not binned or labeled, correct reference number and nomenclature are to be ascertained and entry of the article is to be made on F-33. The article is to be binned and labeled forth with.
 - c. If during the period of stock taking any item is issued out of the stocks checked up, the officer conducting the stock taking is to witness the issue. Such transactions are to be endorsed on the relevant vouchers as "after stock taking" and officer conducting the stock taking is to initial such endorsement.
 - d. The OIC stock taking party is to satisfy himself as to the accuracy of the quantities of items held in store determined by the stock taking party and to insert in column 4 of F-33 the quantities found in stock and the date of stock taking.
 - e. Articles issued on temporary loan are to be entered in column 5 of F-33. The quantity issued on F-6 for repair and dues-in has been noted is to be entered in column No 6. The total quantities shown in columns 4, 5 and 6 is then to be entered in column 7, the figures in column 7 will thus represent the total physical stock.
 - f. The SRCs are to be set aside and no access is to be made to get information from them.
 - g. When the quantities of stock in store have been entered on the F-33, the quantities shown on SRC as "Balance in stock" is to be entered in column 8 of F-33.
 - h. The officer conducting the stock taking is to examine the store inward book to ensure that any article received but not yet BOC have not been included in the stock figures entered on the F-33.
 - j. After satisfying himself, the OIC stock taking party compares columns 7 and 8 and the differences between these two columns determine the "SURPLUSES" and "DEFICIENCIES" which are recorded in column 9 and 10. The figures in these two columns are not to be altered but are to be adjusted as stated in the following paragraphs. The relevant adjusting voucher numbers are to be noted in column 11.
 - k. The officer conducting the stock taking is to draw two red lines across each SRC, leaving sufficient space above the line for the posting of adjusting vouchers.

Methods of Adjusting Discrepancies

6. Following are the methods of adjusting discrepancies:

- a. The OIC is to be note any deficiencies disclosed which appears to throw doubt upon the quantities recorded during the stock taking count. He is then to take immediate steps to verify the quantities by further check.
- b. Deficiencies shown on F-33 are to be checked with the surplus register maintained by EAS in order that they may be set off whenever possible against corresponding surpluses BOC since the previous stock taking.
- c. When the OIC is satisfied that the information recorded on F-33 regarding the physical stocks and the differences between them and the figures shown on the SRC are accurate, he is to sign the certificate at the foot of F-33. The certificate by individual stock taker is also to be completed.
- d. The balance shown in column 7 are to be posted on the SRC below the red lines. The receipt voucher number prefixed by "SS" which was allotted to F-33 is to be used to BOC the final quantities as shown in column 7.
- e. F-21 prepared in duplicate bearing a regular CV number is to be used for such conversion and the CV number is to be quoted in the remarks column against the item.
- f. Net surpluses are to BOC direct from F.33 quoting the same RV No as allotted on F-33. These entries are to be made above the red lines on the SRC postings from F-33 are to be ticked in the remarks column and initialed by clerk concerned.
- g. The deficiencies finally revealed and recorded on F-33 are to be adjusted by F-34. All F-34 raised to adjust such deficiencies are to be registered in the register of losses (F-10026).
- h. The duplicate copy of F-33 along with duplicate copies of all adjusting vouchers are to be passed to LAO through Accountant Officer.

Stock Verification Certificate

7. These certificates are to be rendered by the commanding officer Unit/Base /Depot to LAO, CAFA and Air Headquarters after completion of annual stock taking during each financial year.

Monthly Stock Taking Return

8. All Bases & self accounting units are required to submit the above mentioned return as per specimen given in AFO 67 series. It is to be completed and mailed by 10th of the following month, so as to reach to Air HQ by the 15th of the month. Separate proforma is to be raised for V & A items along with the monthly return.

Questions :

1. What is the frequency of stock taking at Bases?
2. What are the types of stock taking?
3. Why should stock taking be completed by 30 April
4. How are the final deficiencies adjusted?

Ref : AP 830 Vol- I, Pt-II, L/L B-21/1 and AFI 76/48.

TOPIC-9**LOCAL PURCHASE AND LOCAL SERVICES CONTRACT****Local Purchase**

1. **Introduction.** Items which are not available through service sources can be purchased from the local market. The following procedure will be adopted for purchasing an items :

2. **General.** Local purchase order may be placed by the CO Base/OC Unit for one article or a number of articles upto the monetary limits shown in AFI 16/58 and MOD letter No Pro-1/0-VII/83-20 dt 11.3.86 & Air HQ/28208/Accts dt 17.3.86. The order will be placed for those items which are not available or can not be obtained quickly from normal source of supply.

3. **Power of Local Purchase.** The following are the monetary limits of local purchase :

<u>Competent Financial Authority</u>	<u>Limit of Power</u>
a. COAS	Full power
b. PSOs	Tk 7,50,000/-
c. Director of Air Trg	Tk 1,20,000/-
d. Director of Supply	Tk 6,00,000/-
e. DMS	Tk 40,000/-
f. Base Commander/AOC	Tk 40,000/-
g. OC MU	Tk 80,000/-
h. OC , Air HQ(U)	Tk 16,000/-
j. OC Unit	Tk 4,000/-
k. Commandant (101 SFU)	Tk 4,000/-

4. **Tenders.** In case the cost of one item or any number of similar items in one purchase is more than Tk 4,000.00 at Depot and Tk 1,000.00 at Base/Unit, tenders should be invited for local purchase. The purpose of inviting tender is to purchase the item on competitive prices. Following are the types of tenders:

- Limited Tender.** Quotations are invited from selected firms.
- Public Tender.** General invitation to all bidders to have maximum number of competitive quotations.

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5. **Local Purchase Order.** When the CO of a Base decides to obtain equipment by local purchase, F-530 (Contractor's Advice & Inspection Note) is to be prepared in 4 copies by Logistic officer.

6. **Receipt of Equipment.** The following actions are to be taken on receipt of equipment through local purchase:

a. When delivering the equipment the contractor is to submit two copies of his bills on which serial number of the LPO is to be quoted.

b. When equipment is delivered, the LO is to satisfy himself that both quantity and quality (as per patterns, drawing or specification in case of item received from private firms) are correct. Any difference of opinion is to be referred to the CO for decision.

c. The F-530 are to be completed ie the quantity submitted by the contractor, the "Quantity approved" and the "Quantity rejected" columns are to be filled in. The officer inspecting the equipment is to certify that these entries are in accordance with the result of inspection. The "Value" column is to be completed from the contractor's bill.

d. The F-530 is to be given a receipt voucher number (Ext RV) and receipt of equipment is to be recorded in the "Stores Inward Book" F-605.

e. The duplicate copy of F-530 is to be used for SRC action. The supply officer is to sign and date the certificate printed at the bottom of the form (all copies-dup, trip, & quad).

f. Three copies of F-530 along with two copies of contractor's bill are to be forwarded to AO. Duplicate copy is filed in EAS.

7. **Payment Bills.** Contractor's bill rendered in duplicate are to be countersigned by CO. Bills in excess on the financial power to CO are to be countersigned by the competent financial authority (CFA). Bills are to be paid by AO. One copy of contractor's bill and triplicate copy of F-530 are to be passed to CAFA monthly. The remaining copy of F-530 (4th copy) and contractor's bill are retained by AO to support cash account.

8. **LP Return.** All Bases and self accounting units are to render a return, in the shape of RCN as per specimen given in AFO 67 series, to Air Headquarters at the end of each month.

9. **Disposal of F-530.**

- | | | | |
|----|---------------|---|---------------------------------|
| a. | Original | : | With Contractor |
| b. | Duplicate | : | EAS |
| c. | Triplicate | : | CAFA |
| d. | Quadruplicate | : | AO to support the cash account. |

Ref : AP-830, Vol-1, Part-II, L/L B 6/5 & AFI 16/58.

SELF ASSESSED EXERCISE

- Q 1. What are the monetary limits of different commanders in respect of local purchase?
- Q 2. What are the different types of tenders? Explain briefly.

ANSWER TO THE SELF ASSESSED EXERCISE

- A 1. The limits of powers of different commanders are as below :

<u>Competent Financial Authority</u>	<u>Limit of Power</u>
a. COAS	Full power
b. PSOs	Tk 7,50,000/-
c. Director of Air Trg	Tk 1,20,000/-
d. Director of Supply	Tk 6,00,000/-
e. DMS	Tk 40,000/-
f. Base Commander/AOC	Tk 40,000/-
g. OC MU	Tk 80,000/-
h. OC , Air HQ(U)	Tk 16,000/-
j. OC Unit	Tk 4,000/-
k. Commandant (101 SFU)	Tk 4,000/-

- A 2. Following are the different types of tenders.

- a. **Limited Tender.** Quotations are invited from selected firms approved by DGDP or Air HQ.
- b. **Public Tender.** General invitation of quotations from all bidders to have maximum number of competitive officers.

Local Services Contract

10. **Introduction.** Officer Commanding Units/Bases are, where necessary, authorized to enter into contracts for domestic services such as tailoring, boots, shoes repairing, washing and dry cleaning so far as those services are a charge to the public. Such contracts are to be entered into for a period of each fiscal year for which the procedures given in the ensuing paragraphs is to be adopted.

11. **Calling of Tenders.** Logistic officer will issue tender forms (FP-113) to those contractors who are on the approved list maintained by Air Headquarters. In case of renewal of yearly contract invitations are to be issued in advance, to ensure that the new contracts are approved one month in advance of the year end. In such cases tender forms should be sent to contractors 8 weeks before the year and the contractors should be requested to return the completed BAF F(P) 113 at least 5 weeks before year end. Tenders, schedules and other related documents are strictly confidential. Quotations are not to be divulged nor information given to competitors regarding the number or name of firms invited to tender.

12. Invitation form of tenders are to be issued to all at the same time thus giving every tender/an equal opportunity. With the invitation to tender form, an envelope addressed to Officer Commanding and marked "Tender for due" is to be enclosed. These tenders when received will be dropped in a tender box which is to be fitted with two independent locks, the keys of which are to be retained by two officers. These officers are to be detailed by CO and are to be present at the appointed time and date to open the tender box.

13. **Action by Contractor.** Contractors will complete the tender form under their signature and return by stated date and time usually not less than 21 days from the date of issue. In case of a contractor being illiterate, he is to impress his thumb impression of the tender form which must be certified by a witness. Countersignature by a witness is necessary to ensure that even though the contractor cannot read English yet he fully understands the terms of the contract.

14. **Scheduling of Tenders.** Officers appointed by the Commanding Officer for if they are unavoidably absent the officer deputed by the CO are to be present at the appointed time to open the tender box. Tenders thus received are to be numbered consecutively and initialed by both the officers. These are then to be entered on the AF F(p) 547 "Schedule of Tenders" which should bear a certificate to the following fact:

"We hereby certify that the abovementioned tenders are the only one's received in time, and they were opened by us at the time and on the day appointed and scheduled hereon in detail by one of us in the presence of the other".

15. Late tenders are to be marked 'A' , 'B' & 'C' etc and scheduled in red ink below those received in time. Envelopes are to be attached to all late tenders, the exact time of receipt is to be recorded there.

16. **Responsibilities of OC Units/Bases.** It is the responsibility of the OC to ensure that widest competition is always held and that tenders are issued to all the registered contractors. The most economical tender is to be accepted for each Service. Where only one tender is received and consequently competition is possible, the Officer Commanding, before accepting the sole tender, is to satisfy himself that :

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- a. The quotations tendered are fair and reasonable taking into account the special conditions prevailing on that Base.
- b. There is not vast disparity of rates quoted and those applicable during the previous year in renewal of contracts.
- c. The rates, if agreed, will not have adverse reflection on neighboring Bases by tempting the contractors at those Base to enhance their quotation in the next year's tenders.
- d. If OC feels that the contractors prices are exorbitant, he will negotiate with the sole contractor and induce him to reduce his quotations to the reasonable limit.

17. In case of abrupt needs to draw contracts for local services on occasions of emergency the OC may not yet sufficient time to resort at completion and invite tenders from all the approved contractor and negotiate terms with him and draw the contracts on reasonable rates.

18. Where the existing holder of the contract who has executed his contract satisfactorily ties with another lowest tender, his tender is to be accepted for the ensuring year. Officer Commanding are normally to accord approval to the lowest tender. Security deposited by the contractor provides adequate safe guards against any infringement of the conditions laid down in the contract. Economy on public exchequer is always to be given primary consideration.

19. **Action by LO.** Logistics officer is to check the prices and recommend the most advantageous tender to the OC. He will submit his recommendations together with the following documents for his perusal and scrutiny. Late tenders are not to be proposed for acceptance unless no tender is received in time or late receipt was due to postal delay :

- a. List of firms invited to tender.
- b. All tenders in original for check.
- c. Schedule of tender.

20. Approval or disapproval of a tender is to be notified to the respective tender without any delay. One certificate, true copy of the accepted tender is to be forwarded to the CAFA Dhaka; immediately after the contract has been approved. Full particulars of security deposits furnished by the contractors and the method of their disposal are also to be notified simultaneously.

21. Security for all types of tenders will be obtained and forwarded to the Accountant Officer who is to labouring on charge this amount in the public funds accounts. Original copy of the contract duly annotated with receipt particulars and disposal of security is to be retained by the Accountant Officer. Security will only be refunded by the CAFA on the submission of a "Non Claim Certificate" obtained by the contractor from Logistic officer on the termination of his contract.

22. **Payment of the Contractor.** Contractor will render bill for his services strictly in accordance with the terms of contract to EO who will certify the bills and pass to Accountant Officer. Bills of service under standing contract are excluded from local purchase powers and therefore do not require approval of higher authority even if the amount is in excess of local purchase powers of the Officer Commanding Unit.

Ref: AFO (P) 14/51

SELF ASSESSED EXERCISE – 10

Q 1. For local service contract quotations are invited well in advance so that contracts are approved one month before the end of year. How many weeks are allowed for calling and submission of the tenders?

ANSWER TO THE SELF ASSESSED EXERCISE – 10

A 1. Tender forms should be sent to contractors 8 weeks before the end of year and the contractors should be asked to return the same duly completed 5 weeks before the end of the year. Contractor is normally allowed 3 weeks to prepare the offer/quotation.

TOPIC-11

FUEL, OIL AND LUBRICANT

Introduction to Hydro Carbon

1. Crude oil is a broad range mixture of hydrocarbon compound, from light hydrocarbon gases like ethane and propane to compounds containing 20 or more carbon atoms in a single molecule. Refining involves physical separation of this mixture into various fraction and further processing of these fraction involving physical and chemical changes to produce desired products.

2. Crude oil refining has 03 major aims- producing different fuels, making lubricants and producing petrochemical feedstock. In addition other products like Mineral Turpentine, solvents, waxes, petroleum jelly, bitumen etc are also produced

Terms used In POL (Petroleum Oil and Lubricant)

- a. **Calibration.** The process of measuring or calculation the volumetric capacity of receptacle when filled to different levels.
- b. **Co-efficient of Expansion.** When a substance is subjected to a variation in temperature its volume changes. The co-efficient of expansion is the measurement of this change for a rise or fall of one degree in temperature.
- c. **Dangerous Petroleum's.** All petroleum's having a flash point of under 76⁰ F.
- d. **The Dip.** The measured contents of a tank or container. It is registered by a dip stick/rods or measuring tape.
- e. **Distillation Range.** That range of temperature within which a liquid may be transformed into vapour . It is marked by an initial and a final boiling point.
- f. **Flash Point.** The lowest temperature at which a substance will give off explosive vapours.
- g. **Leaded Spirit.** Chemical additives or "Dope" may be used to increase the efficiency of a spirit by giving it a higher octane value. The dope most commonly used is TEL (Tetraethyl lead) which is highly poisonous and requires special precautions in handling.

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h. **Measurement of POLs.** All grades of POL except greases and certain fuel oils which are counted in pounds and tons, are measured in imperial or American gallons .

i) Imperial Gallons = 1.2009 American gallons.

ii) American gallons = .8327 Imperial gallons.

i. **Ullage.** The air space above the level of the POL in a tank or container. It is usually referred to as a percentage of the gross capacity of the container and must not be less than the minimum required by the petroleum rules.

j. **SAE Numbers** (Laid down by society of Automotive Engineers.)Apply to lubricants only and serve as an indication of a specified viscosity range at a certain temperature.

k. **Sludge.** The deposit found at the bottom of a storage tank. It may be caused through condensation on the interior of the tank and may also contain impurities collected from decanting into the tank water always precipitates at the bottom of a tank because its density is greater than that of petrol. It is referred to as a "Water bottom".

l. **Smoke Point.** The maximum height to which a kerosene flame can be turned in a standard test lamp without smoking . It is measured in millimeters.

m. **Specific Gravity.** The weight of a given substance as compared with the weight of an equal volume of a water at the same temperature and pressure.

n. **Standard Temperature (ST).** An arbitrary temperature figure accepted for accounting for POL in bulk. In Bangladesh it is 80⁰. On military bulk stocks of aviation/ motor spirit in deposits of 25.00 gallons capacity or over are accounted for at standard temperature .

o. **Viscosity.** The resistance of a fluid to flow. It is measured by time taken (normally expressed in seconds) for a known quantity of a liquid at a set temperature to flow through a narrow glass tube. The higher the viscosity number therefore, the thicker the oil.

p. **Volatility.** The tendency of a liquid to turn into a vapour (or gas) the lower the temperature at which this occurs, the higher the volatility, e g. Motor spirit vaporizes at a lower temperature than kerosene and therefore, has a higher volatility .

Aviation Fuel

4. To ensure that aero engines operate efficiently for long periods between overhauls, the aviation fuels have to comply strictly with appropriate fuel specifications. These fuel specifications are issued by engine manufacturer, govt authorities, airlines etc. Aviation fuel may be classified in 03 basic groups:

- a. Aviation Gasoline - For use in reciprocating or piston engine aircraft.

Example- Shell Avgas 100, 80, 100LL etc

- b. Aviation Turbine Fuel - For use in the turbo jet or turbo propeller engine aircraft. Example- Jet A-1, JP -4 etc

- c. Power Boost Fluids - For boosting power during take off

Fuels Used for Mechanical Transport

5 Petroleum is one of the most important materials of today. It is the basis of almost all the fuel for internal combustion engines and also for fuel for many other purposes. Crude oil is normally processed for producing various types of finished products. Out of those the following are used in various mechanical transport of BAF.

- a. MS (Motor spirit or Petrol). Popularly known as petrol, it is used as fuel in petrol engines. It is a light petroleum distillate dyed orange and has an octane number of 80(ROD).

- b. SKO (Superior Kerosine Oil). It is commonly known as kerosene and is mostly used for illumination and cooking purpose.

- c. HSD (High Speed Diesel). It is a light yellow coloured distillate fuel. It is popularly known as diesel oil and used as fuel in high speed diesel engine of automobile.

- d. HOBC (High Octane Blending Compound). It is known as 100 Octane as its octane number is close to 100. It is also used in combination with MS in petrol engine. It is dyed in red for marketing.

Questions.

1. Define calibration, flash points, ullage, sludge, specific gravity.
2. Aviation fuel may be classified in how many basic groups?
3. Describe in short about the 04 different types of mechanical transport fuel that we use in the BAF.

Reference.

AP 830 Vol 1, Part-.II, Leaflet B. 14 & POL Hand Book.

TOPIC-12

PROCEDURE ON DIFFERENT GASES

Provisioning of Gases

1. Gases are obtained by stock holding units and other specified units from civilian firms, ie BOC Bangladesh Ltd, under running contracts arranged by Air Headquarters through the Director General of Defence Purchase.
2. BAF equipment Depot is to obtain gases from the Dhaka branch of the company for the units in North Zone while BAF Chittagong is to collect gases from the branch of the Company for the units in South area. Gases are obtained either in owner cylinders or company's as specified in the contract.

Type of Gases and their use .

3. The following types of gases are used in BAF:-

Types

- | | | | |
|----|---------------------|---|--|
| a. | Oxygen Breathing | - | High altitude flying |
| b. | Air Compressed | - | Starting Engine. |
| c. | Welding | - | In work shop |
| d. | Acetylene | - | „ |
| e. | Nitrogen | - | Tear gas used to disperse unruly move. |
| f. | Argon | - | Air conditioner. |
| g. | Freon | - | Refrigerator. |
| h. | Helium | - | Cooler. |
| j. | Hydrazine | - | Science Laboratories. |
| k. | Gas CO ₂ | - | Fire extinguisher. |

Procedure

4. Under the following procedure gases are obtained in owner cylinders from the company as and when required during the agreed period of the contract:-

- a. **Refilling of Gas Cylinder.** Empty cylinders are issued on loan to the company for refilling. F 603 raised in three copies which will bear the following information:

- (1) Name of Company and consignor.
- (2) Sec/Ref. number, description & Qty.
- (3) Serial number of cylinders.
- (4) Contract number
- (5) Signature of LO with date and ext/ IV No.

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(6) Signature of the representative of company who will retain 2nd copy along with the cylinders

(7) Signature of Tally card clerk and then 1st copy is passed to EAS for outward loan action and filing 3rd copy is retained as suspense.

b. **Receipt of Gas** : Gases and cylinders are brought on charge (BOC) by means of CRV raised in required number of copies as specified in the contract and the following information are given on the CRV:

(1) Name of company and consignee .

(2) Sec/Ref number, description. Qty & serial number of cylinders .

(3) Cross reference with relevant F. 603 and Delivery Note on which the consignment is delivered

(4) Contract number

(5) Signature of E O with date and EXT / No.

(6) Signature of Tally Clerk

(7) S I B Number

(8) Original copy of C R V is passed to E A S to clear the out standing loan and then it is filed

Payment of Bills

5. The payment , as per the clause of the contract, is made to the company by FC(air) on receipt of the bill along with relevant copy of CRV duly verified by LO of the concerning unit .

Issue of Gas

6. External issues of gas are made on F. 10238 where internal issues are made on F.674 in normal manner. Empty cylinders are returned to stock holding unit on F. 10238 and F. 675 as appropriate.

Storage and Inspection

7. Instructions regarding storage, inspection and color marking of cylinders are given in AP 830 Vol. 2. However gases are to be considered as dangerous items.

Return

8. Monthly return of gas its to be rendered in the shape of R C N as specified in AFO 67 series.

Ref: AP 830 Vol. 2 L/L SI

Questions:

1. Write down the types of gases that are used in BAF.

2. How do we make payment of the gases?

TOPIC-13

TYPE OF PRIORITY AND PRIORITY DEMANDS

Introduction

1. Requisitions as used in BAF can generally be divided into two groups priority and normal or routine demands. Priority demands are raised for immediate requirements which are explained here under. These are to be properly justified by giving ac, Engine, MT Engine MT Vehicle, Radar and Radar Vehicle number, type and series etc and the date required. These demands will be raised for the bare minimum quantities needed for the specific purpose.

Types of Priority

2. The following types of priorities now-a-days are used in BAF:

a. **AOG (ac on Ground)**. A priority demand is raised for parts required to return an ac to flyable status which is unsafe or unfit for flight. Unless otherwise authorized by Air HQ, AOG demands are raised only by :

- (1) Operational Units.
- (2) Operational Training Unit.
- (3) Aircraft pools & ASU (Aircraft Storage Unit).

b. **A-AOG (Anticipated AOG)**. These demands are raised for parts for which an aircraft is likely to be grounded. Units authorised to raise AOG demands can also raise A-AOG demands.

c. **IOR (Immediate Operational Requirement)**. This priority is used for demanding an item of equipment, the absence of which is likely to impair the functional efficiency of the unit. Unless otherwise authorised by Air HQ, IOR demands are raised only for :

- (1) Winter clothing required for a unit under urgent order to move to a cold area.
- (2) Spares required for MT vehicles in an emergency basis.
- (3) Wireless equipment required for ground defence etc.

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d. **URR (Urgent Repair Requirements)**. This priority is used for demanding an item of equipment without which the repair of an equipment is delayed and can not be completed, URR demands are generally raised by :

- (1) Service repair units.
- (2) Aircraft assembly units.
- (3) Repair contractors.
- (4) Flying units not being operational or operation training units.
- (5) ASU in respect aircraft not required for issue within seven days.

Procedure

3. At units and Bases priority demand numbers are constructed with appropriate priority abbreviation followed by a serial number from the series; maintained separately for each priority on financial year basis. Priority demands are submitted by means of F.52 in the following manner :

AOG/3 JAN 7 (.) SECTION 26TH REF. 2950 PART NO.S14689/40 ELEVATOR
STARB BRD (.) QTY ONE EACH (.) REQUIRED FOR FURY MK II CMM FH 204 AP
1464 REFERS (.) ////

4. F-52 (Message Form) is prepared by Base Log Offr in three copies giving necessary information. The triplicate copy is kept in the file opened for this purpose and the original and duplicate copies are passed to signal section who retains the original for transmission and records and returns the duplicate duly signed as receiving.

5. The local bases/units will submit their demands for priority on F.600 in the normal manner instead of F.52. F.600 will however be stamped with appropriate priority.

Ref : AP 830 Vol-I Part-2 L/L B 5/7

SELF ASSESSED EXERCISE– 13

Q1. What are the types of priorities being used in BAF ?

Q2. What is the difference between IOR & URR ?

ANSWER TO SELF ASSESSED EXERCISE– 13

A1. These should be as follows :

- a. AOG - Aircraft on ground.
- b. A/AOG - Anticipated AOG.
- c. IOR - Immediate Operational Requirement.
- d. URR - Urgent Repair Requirement.

A2. The difference is as below :

- a. **IOR (Immediate Operational Requirement)**. This priority demand is used for demanding an item of equipment, the absence of which is likely to impair the functional efficiency of the unit.
- b. **URR (Urgent Repair Requirement)**. The priority demand is used for demanding an item of equipment without which the repair of the equipment cannot be completed.