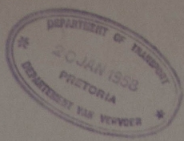


MARION ISLAND.

STANDING ORDERS.

5/70/20A

STANDING ORDERS : MARION ISLAND.



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CHAPTER I. CONTROL.

1. The occupation of Marion Island is sponsored and organised by the Department of Transport on behalf of the Government of the Union of South Africa.
2. The overall control and responsibility for all aspects of the occupation is vested in the Secretary for Transport.
3. The Secretary for Transport shall appoint an Officer-in-Charge and a Deputy Officer-in-Charge of each relief party, who shall be responsible for the administration of the island and the control of the staff during that particular relief. These officers have been Gazetted as Commissioners of Oaths ex officio.

CHAPTER II. CONDITIONS OF EMPLOYMENT.

1. Term of Appointment. The duration of service on the island is normally one year, but this may be shortened or extended at the discretion of the Secretary for Transport.
2. Medical Examination. Officials must pass a medical, dental, ocular and X-ray examination before proceeding to the island. This examination is free, but any treatment arising therefrom, e.g., filling of teeth, supply of dentures or glasses, etc., is paid for by the official concerned.
3. Salary during Absence. Before departure from the Union, each member must complete a form Z.21 (Special Power of Attorney) regarding the arrangements to be made for the payment of his salary and allowances during his absence. This form must be lodged with the Accountant, Department of Transport.
4. Allowances. In addition to salary, the following allowances are payable from the date of departure for the island and until date of return to the Union:-
 - (a) Cost-of-Living Allowance.

<u>Married Officers.</u>	Full Union Rates.
<u>Single Officers.</u>	Half Union Rates.
 - (b) Pretoria and Reef Disability Allowance.

Provided Officers were receiving this allowance at the time of recruitment for service on Marion Island, it may continue to be paid while on the island. Single officers who are not maintaining a home in Pretoria or the Reef will not receive the allowance.
 - (c) Marion Island Disability Allowance.

At the rate of £200 per annum.
 - (d) Responsibility Allowance.

£60 per annum to Officer-in-Charge of Island during period actually in charge.
5. Quarters. Free quarters, fuel and light, valued at £36 per annum are provided on the island.
6. Rations. Free rations valued at 6/- per person per diem are provided on the island.
7. Official Clothing. The following items of protective clothing, bedding, etc., are issued to each official before he proceeds to the island:-
 - 1 Great Coat. (*or rain coat*)
 - 1 Ground Sheet.
 - 2 prs. Army boots.
 - ~~1~~ prs. Flying boots.

Personnel on the Islands must leave their bedding behind, and the bedding at present being issued to relieving staff must be taken to the O.C. for both issues to be taken on. The Labourers must do the laundering of the linen and blankets.

(Resolution of Islands Committee Meeting held on 24/1/1958)

- (b) Before departure from the Union, officials should inform their correspondents in the Union that the messages intended for them are transmitted by radio from Cape Town and should be addressed by ordinary post as follows:-

Name of Officer,
Marion Island,
c/o The Officer-in-Charge,
Air Traffic Control Centre (Wingfield),
P.O. Box 85,
MAITLAND, C.P.

- (c) Persons in the Union may send telegrams to officers on the Island. Such telegrams should be addressed AVIATION CAPE TOWN and the first words of the text should read "following for (name of officer) Marion Island".
- (d) Messages from personnel on the island will be received by radio at the Wingfield Air Traffic Control Centre. Each such message shall contain the name and address of the person for whom it is intended.
- (e) The Officer-in-Charge of the Wingfield Air Traffic Control Centre will enclose each message in an envelope and post it at the nearest Post Office. In the case of Union addresses, the envelope will be marked "MARION ISLAND"; recipients of such messages will be required to pay the postage at Union single rates. In the case of extra-Union addresses, the Officer-in-Charge will affix the necessary postage stamps. Officials proceeding to the island who intend to send messages outside the Union, should accordingly deposit the necessary stamps with the Officer-in-Charge of the Wingfield Control Centre beforehand.
- (f) Officers on the Island will not normally be permitted to send messages to the Union for disposal by telegram but in cases of urgency this prohibition may be waived. In such cases the messages will be disposed of by phonogram and the cost will be charged against the officer's salary, provided the Accountant holds the officer's authority for making such deductions.
- (g) No member of the party will be permitted to dispose of any information concerning the expedition or the island, or to allow such information to be published. Messages from members addressed to the press are not to be accepted for transmission by the Officer-in-Charge of the island.

13. Discipline. In all matters of discipline, general routine, allocation of duties, control of personnel, equipment, stores, etc., at Marion Island, the Officer-in-Charge is the sole authority and each member of the personnel is responsible to and take orders from this officer or his designated deputy. In the case of a severe breach of discipline by a member of the relief party, the Secretary for Transport may order the suspension from duty of the member concerned, together with the cessation of salary payments and other rights, for such period as he considers appropriate.
14. Hours of Duty. Each member must be prepared to perform any duties allocated to him by the Officer-in-Charge at any hour

of the day or night. There are no fixed hours of duty and therefore, no question of overtime duty being performed or paid for.

15. Inspection of Baggage.

- (a) The Secretary for Transport or the Commissioner for Customs and Excise or Officers acting on their behalf reserve the right to inspect the baggage of members before leaving and on return to the Union.
- (b) Under no circumstances may liquor be taken to or brought back from the island.
- (c) Duty will have to be paid on unopened packets of cigarettes or tobacco brought back to the Union as these are purchased ex bond.

16. Rendering of assistance in off-loading and loading ship.

Staff, both disembarking at and returning from the Islands should, when they have time to spare, do what they can to assist with off-loading and loading operations.

The officer-in-charge shall refer all messages to the Union containing derogatory remarks about the Department, the conditions on the Island or other members of the staff back to the writer thereof in order that such remarks be deleted therefrom.

CHAPTER III. DUTIES OF OFFICER-IN-CHARGE.

1. This officer is to carry out such instructions as may be communicated to him by the Secretary for Transport.
2. He will be in charge of the relief party on board the relief vessel and will be responsible to the senior administrative officer of the Department on board.
3. Upon reaching the island, he is to take over command of the station from the outgoing Officer-in-Charge and will continue in charge of all operations and personnel on the island until relieved.
4. He is responsible for the completion of the programme of work drawn up by the Secretary for Transport for his particular relief.
5. The special responsibilities of all officers listed in Chapter IV are subject to the overall direction of the Officer-in-Charge who may assign any work whatsoever to the men under him.
6. All radio communications will be subject to the direction of the Officer-in-Charge and will take place only on his authority. He will initial all outgoing official signals before despatch.
7. He is to see that the men at the station carry out their duties conscientiously and that all schedules are punctually maintained.
8. He shall ensure that the reports to Head Office mentioned in Chapter V are despatched on due dates.
9. He is responsible for the maintenance of the morale of the party and is to act as Liaison Officer between the men at the station and the Secretary for Transport.
10. He is to carry out regular inspections of the whole station to ensure that all quarters are kept neat and tidy, that deterioration of buildings and equipment does not pass unnoticed, that fire precautions are being observed and, in general, that the station is being maintained at the highest peak of efficiency.
11. He is to examine all fire-fighting appliances once each month to ensure that they are in a condition for immediate and efficient use and shall date and initial the label attached to each appliance accordingly.
12. He is to be responsible for the sale of cigarettes, beer, tobacco and matches to the men at the station. He shall keep a proper record of all such sales.
13. The use of firearms is strictly under the control of the Officer-in-Charge. All ammunition must be kept locked up. Firearms are to be cleaned immediately after use and at least once a week. In his discretion the Officer-in-Charge may allow the shooting of game for eating purposes but shall not allow the wilful destruction or interference with wild life under any circumstances. Cats that have become wild may however be shot at sight.

14. In the case of a serious breach of discipline, the Officer-in-Charge will take such action as he may deem appropriate and report full details to the Secretary for Transport.
15. In the case of his illness or absence from the station, the next most senior Officer will assume all the responsibilities of the Officer-in-Charge.
16. On return to the Union, the Officer-in-Charge is to submit a confidential report in which shall be incorporated a general account of the year's running of the station, comments on the morale, health and social life of the men and suggestions for improving the running of the station.

CHAPTER IV. SECTION I.DUTIES OF METEOROLOGICAL OFFICERS ON MARION ISLAND.1. INTRODUCTION.

1.1. At present the primary aim of the station is the collection of meteorological and, from time to time, other scientific data and results. Therefore all other functions of the station are directed towards, and are subsidiary to, this end.

2. METEOROLOGICAL OBSERVATIONS.

2.1. In broad outline the programme of work to be followed is similar to that of a Union continental station equipped with radio sonde but, in addition, certain extra duties will have to be performed. Also special precautions will have to be taken when observing certain weather elements.

2.2. SHIP REPORTS.

2.2.1. During the voyage of the relief ship the senior met. officer must assist the ship's navigator with the compilation of the 0600z, 1200z and 1800z synoptic reports.

2.2.2. The senior met. officer must make a copy of the hourly sea temperatures as recorded by the Officers of the Watch, and must include the ship's position at six hourly intervals. This copy must be handed to the returning senior met. officer, and he, together with his own copy of the return journey, will deliver it to the Weather Bureau, Pretoria.

2.3. SYNOPTIC OBSERVATIONS.

2.3.1. Weather observations must be made at 0300, 0600, 0700, 0900, 1200, 1500, 1800Z. Interpolate 0000Z.

2.3.2. Synoptic messages in terms of instructions contained in W.B. 4A. are to be compiled for observations at 0300, 0600, 0900, 1200, 1500, 1800Z. In addition as complete a message as possible for 0000Z is to be compiled from the records of automatic instruments.

2.4. UPPER AIR OBSERVATIONS.

2.4.1. These observations are divided into three categories:-

- (a) r/s ascents.
- (b) pilot (ceiling) balloons.
- (c) nephoscopic observations.

2.4.2. A determined effort must be made to begin a r/s ascent at 0400z daily.

2.4.3. Weather permitting, the balloon must be followed by theodolite, even if low cloud will

obscure the balloon within a few minutes.

2.4.4. If a r/s ascent does not take place a pilot balloon must be done, if it is reasonably certain that it can be followed for at least ten minutes. In all other cases a ceiling balloon must be used.

2.4.5. As far as possible the coded temp message must be ready by 0615z.

2.4.6. If no r/s ascent is done, a message to that effect, including the reason, must be appended to the synoptic reports.

2.4.7. The CLIMAT TEMP message must be available on or before the 3rd of each month. The monthly averages must first be checked on an aerological diagram.

2.4.8. Nephoscopic observations must accompany the 0600z and 1200z synoptic whenever clouds are observed. A Fineman nephoscope is provided for this purpose, and clouds near Zenith are preferably to be chosen for these observations.

2.4.9. The nephoscope observations will be coded as follows:-

NEPH iii Cddv_rv_r Cddv_rv_r.....

where:-

C = genus type of significant cloud (see W.B.4.Code 10.)
 dd = direction of cloud movement (from which cloud is coming.)
 v_r v_r = relative speed of cloud, in radians per hour, determined by the nephoscope.

(Note: a complete description on how to use the Fineman nephoscope is given in the "Meteorological Observer's Handbook").

2.5. CLIMATOLOGICAL RETURNS.

2.5.1. The W.B. 3 instructions must be rigorously followed.

2.5.2. All returns must be completed as soon as possible after the end of each month. A signal stating that all returns are complete must be despatched monthly.

2.5.3. It must be noted that the 5" rain gauge with the nipher shield is the official gauge, and therefore the amount of rain measured from this gauge must be entered in column 20 of the Met. 18 return. At the top of this column enter the words "Nipher shield gauge", and this rainfall must also be given in the synop messages. A separate column must be made in the remarks column of the Met. 18 return and the rainfall amount measured from the 5" gauge without the nipher shield must be entered here. Head the column "Rain gauge without nipher shield".

2.5.4. The CLIMAT message must be transmitted to the Union before the 3rd of each month.

2.5.5. In case of instrument failures, a report must be signalled to the Union at once.

2.5.6. When an interesting or unusually severe weather situation, or extreme temperatures, or pressures, etc. occurs a report describing that occurrence must be signalled to the Union. As an indication such messages should not be more numerous than one or two a month.

3. METEOROLOGICAL RADIO TRANSMISSIONS.

3.1. The contents of messages of met. observations transmitted at various times of the day will be as follows:-

3.1.1. 0615z SCHEDULE.

SYNOP 0600z.
RETARDS 0000z, 0300z.
TEMPS. (Pilots)
NEPH.

3.1.3. 1815z SCHEDULE.

SYNOP 1800z
RETARDS 1500z

3.1.2. 1215z SCHEDULE.

SYNOP 1200z
RETARDS 0900z
(Pilots)

3.2. If the temp message is not compiled by 0615z, the radio operator should be requested to arrange an additional schedule for disposal of the report at the time it is expected to be ready.

4. CHECK AND ORDERING OF METEOROLOGICAL STORES.

4.1. Approximately three months before the end of the term of service the senior met. officer will check his meteorological equipment register and, together with the storeman, check the meteorological stock register.

4.2. The senior met. officer will compile a list of items required for the next relief. After its completion he will hand the list to the O.C. island station for signalling to the Union.

4.3. If at a later date it is discovered that certain items have been omitted, he must supply an additional list to the O.C. for signalling to the Union.

5. TAKING OVER PROCEDURE.

5.1. The outgoing senior met. officer will, together with his successor, check the meteorological equipment register (not stock register) on his charge. If any items are missing a list of these items must be supplied to the O.C. island. The incoming senior met. officer will then take all equipment on his charge.

5.2. The outgoing officers will advise their successors as to the conditions and serviceability of all meteorological equipment.

5.3. If the ship stays at the island for a sufficient length of time, the outgoing senior met. officer must ensure that each incoming met. officer keeps one complete meteorological

logical routine duty under the supervision of the outgoing met. officers. He must ensure that each incoming met. officer is completely conversant with the equipment and procedure.

5.4. The outgoing senior officer will advise the incoming senior officer of any difficulties in the operation equipment (e.g. icing anemometer tube), and of any special techniques involved for overcoming them.

5.5. The outgoing senior officer will, on his return arrival in the Union, present to the Director a report concerning all matters affecting meteorology at the island. He will report suggestions and recommendations to improve met. equipment, observations and the meteorological standing orders. In order to assist him in the compilation of this report he is to maintain a met. log book in the met. office in which all met. officers must make daily entries recording meteorological matters which occurred during their respective watches.

6. GENERAL.

6.1. A chronometer is installed in the met. office, and the following points must be observed regarding its correct functioning:-

- (a) wind once a day;
- (b) check time against a radio time signal (Arrange with radio operator by phone);
- (c) do not set clock to correct time but enter time differences in a daily log. (The chronometer is very sensitive to temperature changes).

6.2. The "Duties of Meteorological Officers on Marion Island" may be amended during the year and advice of such amendments will be transmitted by official signal from the Director, Weather Bureau. Any amendments signalled are to be entered on all copies of the standing instructions held on the island.

6.3. In addition all instructions contained in the Weather Bureau series publications, especially with regard to meteorological instruments, should be adhered to.

6.4. Meteorological officers will also undertake all further duties which the Officer-in-Charge may find necessary to entrust to them.

CHAPTER IV. SECTION 2.DUTIES OF AIRRADIO TECHNICIAN.MAINTENANCE ROUTINE FOR RADIO AND ELECTRICAL EQUIPMENT ON MARION ISLAND.

1. This instruction summarises the work to be done to maintain all technical equipment on Marion Island. SCOPE.
2. The basic principle to be adopted for all technical maintenance is that preventive measures must be taken by technical staff to avoid any form of breakdown and to maintain equipment at its peak performance rating.
3. Routine checks and inspections shall be carried out at Daily, Weekly, Monthly, Quarterly and Yearly Intervals, depending upon the nature and intensity of the check or inspection, and remedial actions taken at the first signs of deterioration of a unit, component or part. ROUTINE CHECKS.
 - 3.1. If insufficient spares are available on the Island, the replacement of a deteriorating part shall be subject to the discretion of the technician in charge of the plant, but he shall take immediate steps to bring this insufficiency to the attention of the Chief Engineer to avoid it recurring in future.
4. The following types of checks and inspections shall be carried out on technical equipment at the frequency indicated.
5. Clean off all dirt and moisture from plant, cabinets and fittings. DAILY
All equipment and plant.
6. Check meter readings, dial settings and general performance of all Transmitters and Receivers on working frequency. Adjust or correct where necessary. Electronic equipment.
7. Adjust frequency of working transmitters with BC 221 frequency meter.
8. Check all aerials, feeders and aerial switching for satisfactory operation.
9. Check all meter readings against normal values. Electrical equipment.
10. Check commutators, sliprings and brushes on all alternators, battery chargers and windcharger. Clean and adjust if dirty or sparking. Wipe off condensed moisture before setting in motion.
11. Check state of charge of main batteries and adjust charging rate accordingly.

12. Check for possible drain on main batteries other than from normal circuits and trace and remove leakage paths or circuits. Keep all cells free of moisture or creeping acid on outer casings.
13. Check for corrosion or rot on all technical equipment and take steps to counteract any signs of these. WEEKLY
All equipment and plant.
14. Oil lightly where necessary all machined surfaces and tools.
15. Check all transmitters and receivers on all registered frequencies for peak performance. Electronic and associated equipment.
16. Compare dial calibrations and meter readings with standard readings and correct where necessary.
17. Inspect all aerials, feeders, stays and halyards visually for corrosion or damage. Apply fishoil or repair where necessary.
18. Open up all cabinets and clean out dirt or moisture.
19. Check all relay contacts for tension and wear and clean and adjust where necessary.
20. Check specific gravity of all accumulator cells topping up where necessary and arrange to even up charging during ensuing week. Electrical equipment.
21. Clean and check all battery circuit joints and connections checking carefully for hotspots.
22. Clean accumulator bank thoroughly. Ensure that accumulators are kept free of outside moisture and creeping acid and remove deposits of sulphate and verdigris. Keep connections secured with petroleum jelly.
23. Clean all insulators and terminal strips mounted indoors or inside cubicles. MONTHLY.
All equipment and plant.
24. Ensure that all threaded or jointed members are free to turn.
25. Open, inspect and clean all 1154/1155 power supply units. Electronic and associated equipment.
26. Clean commutators and inspect brushes on type 33 and 35 genemotors of the T1154 and R1155 installation.
27. Check stay adjustment and mast alignment and correct where necessary.
28. Inspect all telephones internally and check associated wiring and batteries and clean where necessary. Remove moisture or dirt from mouth and earpieces.

29. Inspect all electric lights, switches and associated wiring. Repair or renew where necessary.
30. Clean lamp shades.
31. Ensure that daily, weekly and monthly routines are effective. Upgrade frequency of routine where it is warranted.
32. Overhaul and repair all test equipment and tools. Reset or recalibrate where possible.
33. Arrange for an independent tools and spares check to be carried out by Storeman and try and account for any discrepancies immediately and in writing.
34. Check conditions of all spares held and reject all doubtful and faulty stock.
35. Obtain permission from C.A.E. to return obsolete or superfluous stock to the Union.
36. Review all preventive routines carried out over preceding quarter and adjust programme for ensuing quarter to remedy omissions in routine.
37. Submit general station report to C.A.E. reporting progress, anticipated difficulties with equipment, insufficiency of spares and equipment, suggestions for improvement and any other relevant matter.
38. Remove all radio chassis from their units and thoroughly clean, inspect and test same.
39. Check all valves and replace where necessary.
40. Check values of all critical components in signal circuits and replace where tolerances are exceeded.
41. Check all wiring for deterioration and replace corroded or perished connections.
42. Replace any doubtful component.
43. On re-assembly check for signal continuity throughout and check all voltages possible for normality.
44. Renew unsatisfactory stays, halyards, feeders and aerials.
45. Check operation of walkie-talkies on all channels.
46. Check alignment of all receivers and re-align where necessary.
47. Megger all cable and wiring disconnecting where necessary to protect instruments, fuses, etc.
48. Examine all plugs and sockets including lamp sockets for signs of overheating and perished insulating material. Regulate loads on these points.
49. Give all bonding and earthing circuits a thorough going over and keep their resistances at their lowest.

Electrical
equipment.

QUARTERLY.

All equip-
ment and
plant.

Electronic
and asso-
ciated
equipment.

Electrical
equipment.

The radio-operator shall not despatch any messages containing derogatory remarks about the Department, the conditions on the Island or other members of the staff. Any such derogatory messages must be brought to the attention of the Officer-in-Charge.

CHAPTER IV. SECTION 3.DUTIES OF AERADIO OPERATOR.

1. The Aeradio Operator shall ensure that all outgoing official signals are initialled by the Officer-in-Charge of the station before despatch. All incoming signals shall be handed to the Officer-in-Charge as soon as possible after receipt.
2. All traffic handled by the Aeradio Operator must be treated as confidential and secret. Nobody except authorised persons is to be allowed in Operating Room during Schedule hours.
3. The Aeradio Operator shall keep a record of private messages sent and received by members of the staff with a view to ensuring that the maximum number of words allowed free of charge for each officer is not exceeded, i.e. 300 words received and 300 words transmitted in any one week. He shall only allow this limit to be exceeded with the express permission of the Officer-in-Charge.
4. To comply with operating procedure, signals shall comprise the following:-
 - (a) heading,
 - (b) preamble,
 - (c) address,
 - (d) Text,
 - (e) signature group.
5. The heading shall be inserted by the Aeradio Operator and shall comprise:-
 - (a) the radio call sign of Marion Island,
 - (b) an oblique stroke,
 - (c) the circuit message number relative to the station to which the message is transmitted.

Circuit message numbers shall be maintained in a daily sequence commencing with Number 1 at 0000 G.M.T. each day.
e.g. Z.R.S./4.

6. The preamble shall be inserted by the Aeradio Operator and shall comprise the station of origin (in the case Marion Island), the filing number, the word count and the date and time (in G.M.T.) of filing, thus:-

MARION ISLAND 24 36 081210

7. The address of official messages shall be:-

JJ MET ZTPR; JJ SECRETARY FOR TRANSPORT ZTPR;
JJ CAE ZTPR; JJ CAO ZTPR, etc.

At the discretion of the Officer-in-Charge messages which are sufficiently urgent to warrant expeditious treatment may bear urgent priority DD instead of JJ.

CHAPTER IV. SECTION 4.DUTIES OF DIESEL MECHANIC.ROUTINE MAINTENANCE FOR COVENTRY VICTOR W.D.15/7H.P.
(MARION ISLAND).DAILY.

1. Check engine oil level and top up if necessary.
2. Fill fuel tank.
3. Check water level in cooling tank.
4. Lubricate governor linkage.

WEEKLY.

1. Drain water and sludge if any from fuel tank.
2. Drain and bleed fuel filter.
3. Check and adjust tappet clearance if necessary in T point 003 and ex point 005.
4. Examine coupling between engine and alternator for excessive wear. (Remedied by adding or removing shims between engine and base).

MONTHLY. (or every 200 hours)

1. Drain crankcase completely and flush with paraffin. Refill with fresh oil SAE20.
2. Remove and clean oil filter.
3. Remove and clean fuel filter.
4. Clean and adjust atomizer.
5. Remove and clean cold starting injector.
6. Inspect and tighten all fuel pipe connections. (Care should be taken to see that fuel pipe does not foul the fuel rack).
7. Remove crankcase inspection cover and check big end bearing for wear.

AFTER EVERY 400 HOURS.

1. Decarbonise and grind valves.
2. Check and replace if necessary rocker arm bushes.
3. Regrind rocker arm faces if worn.
4. Examine valve guides. Replace if worn.

5. Remove barrel and examine for wear. (Worn barrels to be returned to Union for reboring).
6. Remove piston rings and clean piston grooves. (Care must be taken to replace rings in their correct position).
7. Remove and clean fuel filter element.

Fitting of new piston rings and replacement of other parts is left to the discretion of the mechanic.

WHEN NECESSARY.

1. Service Cranes on Gunner's Point. Important to check that all moving parts are free.
2. Service Winch on Boulder Beach.
3. Service Catwalk i.e. grease and oil the monkeywinches and all cables to prevent rust.

GENERAL.

In addition to the abovementioned duties the Diesel Mechanic must undertake such further tasks as the Officer-in-Charge may find necessary to entrust to him.

NEW PLANT.

The recommendations made in minute PWD 4/9567 (A606) dated 19 March 1956, copy of which has been forwarded to the Island, must be carried out.

Inspection and Maintenance Services.

4. The Diesel Mechanic must carry out routine inspections, at least once a month, and is responsible for the maintenance of the landing stage.

CHAPTER IV. SECTION 5.

STORES INSTRUCTIONS : MARION ISLAND.

1. The Officer-in-Charge, Marion Island, and staff at Head Office will be guided by this instruction in stores procedure to be adopted at Marion Island. SCOPE.
2. Personal responsibility for the safe-keeping and correct use of all Government-owned equipment, spares, etc., on Marion Island will be vested in the Officer-in-Charge, Marion Island, and he will be responsible for observing the provisions of the "Financial Regulations" and of the supplementary provisions made in Departmental Stores Instructions. PERSONAL RESPONSIBILITY.
3. An Equipment Ledger must be kept for the Island whereby equipment and stocks of Spares, food, fuel, etc., may be accounted for as required by Annexure "G" to the "Financial Regulations". This ledger shall be subdivided as follows for reference purposes:- EQUIPMENT LEDGER.
 - (a) General Maintenance Items: non-expendable.
 - (b) Domestic Items (Food, utensils): expendable and non-expendable.
 - (c) Meteorological Equipment: non-expendable.
 - (d) Medical Equipment: expendable and non-expendable.
 - (e) Aeradio Equipment: non-expendable.
 - (f) Clothing and Welfare Equipment: non-expendable.

Forms Z.66 will be used as heretofore for this ledger.

3.1. Note: It will be noted that Food and Medical Supplies that are expendable are the only consumable items that require to be entered in this ledger. This is to ensure that the closest possible check is kept on these two categories of consumables upon which the health (and even perhaps life) of every member of the Island community is dependent. All other items which can be regarded as expendable will not be booked through this Main Equipment Ledger. FOOD AND MEDICAL SUPPLIES.
4. The Stores Voucher procedure for the Equipment Ledger will be the same as for any ordinary Station Equipment Ledger and may be found described in the Departmental Standing Instructions (Stores) with one difference only, i.e. Acknowledgement of all issues as per S1 Vouchers shall be made by signal to enable Pretoria Stores Ledgers to clear their books. (See para. 10). It is to be noted that issues off and on to this Equipment Ledger can only be done by means of vouchers. VOUCHER PROCEDURE.
5. For consumable and expendable items the procedure will be to book these directly to a Section Inventory. (See para. 6). EXPENDABLE ITEMS.

N.B. Paragraph 5 (a).

Treasury authority (see minutes of Esplanade Committee of 20/1/58) has been obtained in terms of which issues of consumable and expendable items will henceforth be ledgered on Z. 67 forms (and a sub-report submitted to the relieving officer for verification purposes.)

6. A Section Inventory is designed to enable each Officer-in-Charge of a particular section to know exactly what equipment, spares, and expendables he should be working with and will be answerable for (See para. 18). This inventory will show major equipment, spares, and consumables, non-expendable accessories, spares and consumables that are issued to the section either directly from Pretoria Stores or from the Marion Main Equipment Ledger. The Inventory will be divided into two parts, Part I showing non-Expendable items and Part II Expendable items. In general all items reflected in Part I will be reflected again in the Main Equipment Ledger for the Island. Since they are non-expendable items, only one set of entries through the Equipment Ledger and on to the Section Inventory needs to be made. Items reflected in Part II of the Sectional Inventory will not be booked through the Main Equipment Ledger except in respect of Food and Medical Supplies. Forms Z.64 will be used for the Sectional Inventory (Parts I and II) (See also para. 3.1 and 4 and 6.1). It is to be noted that the writing off to "Consumption" of expendable items does not require supporting vouchers for these inventories. However an entry must be made on the "issue" side of the Z.64 giving date and use with initials.

SECTION
INVENTO-
RIES.

- 6.1. Where a section does not wish to keep all stocks of spares and expendables on hand at the section it is possible for it to pass the bulk of its stocks through the Main Equipment Ledger into the main Storerooms for safekeeping by means of an S.3 voucher and draw them as required per S.3 voucher.

STORING
EXPEND-
ABLES.

- 6.2. For items such as fuel, the use of which is common to two or more sections, it may be necessary to book them through the Main Ledger primarily to ascertain overall consumption and also to ensure that they are not abused. This procedure will be at the discretion of the Officer-in-Charge of the Island.

EXPEND-
ABLES
IN COMMON
USE.

- 6.3. For food, cigarettes, sweets and expendable medical supplies (especially drugs) the Officer-in-Charge shall take these on charge on the Main Equipment Ledger only and issued to the Section requiring them as needed per S.3 voucher. This ensures that a double-entry check is kept on the stocks and the consumption of these important items. (See also paras. 7 and 22).

FOOD,
CIGAR-
ETTES,
SWEETS,
ETC.

7. Sectional Officers requisitioning for supplies of fuel, food, medical supplies, etc., which are on charge in the Equipment Ledger shall do so by means of an S.3 which they must prepare themselves.

SECTIONS
TO PRE-
PARE S3's.

8. For the purposes of this instruction expendable and consumable items will be roughly defined as follows:-

1. All spares held for use or possible use with Aeradic equipment, Meteorological equipment and for any other item of major equipment (e.g. burners for geysers) i.e. Such

DEFINITION
OF EXPEND-
ABLES AND
CONSUMA-
BLES.

items as do not constitute a complete unit of equipment in themselves. Examples are valves, resistances, condensers, engines spares, panel-mounting meters, knobs, dials, electric light globes, etc.

2. All consumable materials, e.g., fuel, paint greases, oils, hacksaw blades, files, etc.

3. Miscellaneous materials used with repair or construction jobs, e.g., screws, nails, timber, glass, etc.

4. Crockery glassware, brushware, cloths which deteriorate by fair wear and tear. All other equipment, including most tools and cutlery, is classed as non-expendable.

9. The checking of all stores and provisions on being landed at Marion Island is most important to ensure that adequate stocks have been received and to keep the records in order. The Officer-in-Charge of the relieving party will therefore be held responsible for checking the whole consignment against the packing lists provided and will be required to sign one copy of this list and return it to the Captain of the ship carrying out the relief. He will retain a copy of the list for his own reference. The list shall be endorsed shewing what cases have not been received at all and what cases have been received damaged or broken open. If time permits details must be given of the damage to the Captain of the ship, otherwise these must be signalled to Head Office as soon as a complete check has been carried out. (see next paragraph).

CHECK ON
LANDED
STORES.REPORTING
DAMAGE OR
LOSS TO
SHIP.

0. The whole consignment must be checked against the issue vouchers within one month of the relief ship leaving the Island and a signal sent to Head Office confirming receipt of all vouchered items. For those items not received or received damaged, details of issue voucher numbers (both), Cat. Nos. (if catalogued), description as per voucher and whether "not received" or "received damaged" with case number in packing list must all be quoted so that full details may be reported to Treasury and to the Department of Defence for formal explanation. If the case has been certified received from the Captain of the ship and has been subsequently lost or damaged, full details of the circumstances should be quoted.

ACKNOWLEDGE-
MENT OF
RECEIPT.REPORTING
DAMAGE OR
LOSS TO
H. Q.

1. Every care should be taken to preserve packing material for further use on the Island.

PACKING
MATERIAL.

2. In returning stores to the Mainland, the Officer-in-Charge shall ensure as far as possible that items are packed in cases not exceeding 50 lbs. in weight, i.e. of a weight and size that can be handled by one man with one hand in a rocking boat. If on charge to the Equipment Ledger, (and only such items should be returnable) S.2 vouchers should be made out quoting Cat. Nos. if applicable. Head Office Stores will signal receipt in due course to enable these to be re-

RETURNING
STORES TO
MAINLAND:
PROCEDURE.

moved off charge. A packing list shall be prepared and each case numbered clearly for this purpose. Two copies of this list shall be handed to the Captain-in-Charge of the ship and the returning Officer-in-Charge shall return a third copy with other papers and vouchers to Pretoria.

13. All voucher acknowledgement copies shall be brought back to Head Office personally by the Officer-in-Charge returning from the Island, who shall hand them to the Chief Aeradio Engineer. VOUCHERS TO HEAD OFFICE.
14. It must be stressed that it is important for the Island to keep a close check on consumption of all spares and consumable items, not so much from the Stores point of view, though this is obligatory, but from the functional point of view. A record of consumption will facilitate restocking orders and at the same time ensure that no items are overlooked. In general all Departmental spares, etc., will be easily checked from the Sectional Inventories and requisitions prepared from this record. Should no requirement for stores records to be kept be laid down, it is imperative to keep a consumption list and the Officer-in-Charge must leave no stone unturned to ensure this is done. CHECKING CONSUMPTION.
15. All stores on charge to the Equipment Ledger should be kept under lock and key in the Food Store and the Equipment Store, except in the following cases:- STORAGE OF MATERIALS, ETC.
- (a) Timber Piping and metal stocks to be kept below equipment store;
- (b) Photographic equipment, surplus games, and articles of this nature to be kept in locked cupboards in the Main Buildings;
- (c) Sectional Inventory equipment and spares shall be kept at the section concerned, such items as considered necessary, being locked away in cupboards by the Officer-in-Charge of the section.
- (d) Fuel and inflammable materials shall be stored in the open, well away from any building - at least 50 feet distant. Tins of paint, etc., when once opened, may be stored under cover provided precautions against fire are taken; the Officer-in-Charge of the Island will be held responsible for ensuring that vigilance in this respect is never relaxed. FIRE PRECAUTION.
- (e) Food for livestock must be stored in as dry a place as possible.
16. It is recommended that the Stores be opened for fixed periods at fixed times of the day. FIXED STORES HOURS.
17. Where it is necessary to issue a series of items covering more than one of the Subdivisions

of the Equipment Ledger (see paragraph 3) separate S.3 vouchers for each subdivision of the ledger must be made out.

18. The following Sectional Inventories shall be kept:-

- (a) Kitchen Utensils and Equipment;
- (b) Medical Equipment;
- (c) Meteorological Equipment;
- (d) Aeradio Equipment and Plant;
- (e) Power Plant and Pumping Machinery, Cranes;
- (f) Carpenter's Tools and Materials;
- (g) Games, Library, Gramophone and Records;
- (h) General and Miscellaneous Equipment;
- (i) Personal Issues.

The Officer-in-Charge shall hold an officer in each respective section responsible for keeping these inventories up to date and in order. These must be ruled off and balanced. Painted identification marks should be used to distinguish between similar tools etc., over which confusion might arise as to which inventory they are on charge.

20. The Officer-in-Charge shall check the various sectional inventories each at least once every six months against physical stock and against his Equipment Ledger.

INVENTORY
CHECKS.

21. Broken and non-repairable items which cannot very well be written off inventory charge as "used" must be returned to the Equipment Ledger by S.3 action and held there pending Board of Survey by the next relief. "Non-repairable" shall mean not repairable even by Head Office Workshops. Repairable items which are merely beyond the resources of the Island to repair shall be packed and recovered by S.2 through the Equipment Ledger to Pretoria Stores, no Board of Survey being necessary.

BROKEN AND
NON-REPAIR-
ABLE ITEMS.

22. For consumable items which are held on the main equipment ledger a system of rationing should be introduced whereby the items are issued off on a monthly basis. Food especially should be issued to the Kitchen Inventory every month on a basis that the stocks are expected to last for 15 months, i.e. 1/15th of any food item is the most that can be issued every month. Similarly, rationing should be arranged for fuel if considered necessary. (See para. 6.2.).

RATIONING.

23. Orders for replenishing stocks and for fresh equipment shall be prepared at least four months before the relief takes place i.e. on the

assumption that the relief will take place every March, requisitions must be made during the November preceding. Since in many cases supplies have to be ordered from overseas it is no use signalling for supplies in January. Orders not placed by December have no chance of being shipped to the Union betimes.

ORDERS FOR RESTOCKING.

24. Orders must be signalled separately for sections, i.e., Met., P.W.D., Aeradio, Medical, Foodstuffs, so that no time need be lost in reclassifying lists at Head Office for attention by different Departments and Divisions.

25. In addition to the checks listed in para. 20, the Officer-in-Charge will be required to carry out a stockcheck for all items on charge to his Equipment Ledger and the Sectional Inventories at least once a year and must signal to Head Office that this has been satisfactorily completed not later than the 31st October of each year, discrepancies being reported with details and circumstances.

STOCK-CHECK.

Note 1: This stockcheck may profitably be combined with the restocking calculations with much saving of time and thought.

Note 2: It must be clearly understood that although items may have been booked off to the Sectional Inventories, the whole stock on the Island must be checked from the Equipment Ledger.

26. For purposes of Handing-over, Treasury has approved that an abbreviated Handing-over procedure may be adopted whereby only major items of equipment need be checked visually and functionally at the time of the relief. It is therefore only necessary to list those items where value exceeds £10 on the Handing-over Certificates Z.70. Before signing, the Officer-in-Charge of each section taking over from his predecessor shall satisfy himself that the equipment in question is not only physically present but also functioning. One copy of each Z.70 shall be brought by the returning Officer-in-Charge of the Island to the Chief Engineer, Aeradio Engineering Branch. The other copy shall be kept on the Island as a record.

HANDING-OVER CERTIFICATE.

27. All clothing issued to personnel must be returned to the Aeradio Stores, Pretoria, by the persons to whom the clothing was issued - see Chapter II paragraph 7. Any clothing which is worn-out and not worth returning to Pretoria shall be handed in at the Marion Island store. Such worn-out clothing shall be put aside for a Board of Survey conducted by visiting officers.

28. In terms of the provisions of paragraph 22 of Annexure G to the Financial Regulations a Livestock Register of sheep and poultry must be kept. The register should have the following headings and a separate record must be kept for sheep and poultry.

LIVESTOCK.

- (a) Date
 (b) On hand at beginning of financial year
 (c) Acquired during year by
 1. Purchase
 2. Donation
 3. Natural increase
 4. Transfer
 (d) Disposed of during year by
 1. Transfer
 2. Donation
 3. Sale to Staff
 4. Sale to Public
 5. Slaughter for official purposes
 6. Losses due to
 (a) sickness
 (b) accident
 (c) theft
 (d) straying
 7. other causes.
 (e) On hand at end of financial year.

Sheep		Poultry.	
No.	Value	No.	Value

The value of the livestock for Departmental purposes is as follows:-

Poultry	10/-	per head
Rams	£20	" "
Ewes	£10	" "
Hamels	£ 4	" "
Lambs up to the age of six months:		
	£ 2-10-0	
Chickens up to the age of three months:		
	5/-	

CHAPTER IV.SECTION 6.DUTIES OF EUROPEAN LABOURERS.

1. The European labourers shall be responsible for keeping the living quarters of the staff and all other buildings, housing plant, equipment and stores of the Department on the Island, clean and swept and the floors well polished. This will include the cleaning of windows and dusting of all furniture, etc.
2. They shall further be responsible for feeding of live stock on the Island and for the tending thereof.
3. When it becomes necessary and when duly instructed thereto by the Officer-in-Charge, they must undertake the general maintenance of buildings including the painting thereof.
4. In addition the European labourers must undertake any other duties that may be entrusted to them by the Officer-in-Charge.

CHAPTER V.REPORTS TO HEAD OFFICE.

The Officer-in-Charge shall send the following reports to the Union not later than the 3rd day of each month, except where otherwise indicated:-

- (a) building progress report to Secretary for Transport, who shall transmit it to the District Representative, P.W.D., Pretoria.
- (b) health report to the Surgeon-General, Dept. of Defence.
- (c) station personnel report to the Secretary for Transport.
- (d) report on livestock, trees, etc., to Secretary for Transport.
- (e) report on condition of radio and other technical equipment and keeping of schedules to the Chief Aeradio Engineer.
- (f) statement to Secretary for Transport of amounts to be deducted from salaries of officers concerned in respect of cigarettes, tobacco and matches purchased by them during the past month.
- (g) by 15th of each month, report to Director, Weather Bureau, stating whether all Met. chart reductions and summaries for the previous month have been completed and if not which are behind-hand and reasons for delay.

CHAPTER VI.GENERAL.Photography.

1.
 - (a) The photographic dark-room and necessary equipment are available to everyone. Beginners must consult those who are familiar with photographic work.
 - (b) No one is allowed to work the enlarger unless he knows the elementary principles of enlarging.
 - (c) As developers are normally issued in packets of one gallon solution, special care should be taken to prevent wastage. It is possible to develop about 30 films with one gallon of solution before it is exhausted. The same applies to fixing solutions.
 - (d) The dark-room must be thoroughly cleaned after it has been used and the equipment replaced. The Officer-in-Charge must be informed immediately after the dark-room has been vacated to enable him to inspect it.
 - (e) Any photographic equipment broken must be reported to the Officer-in-Charge.

Stamping of Envelopes.

2.
 - (a) Mail matter written on Marion Island and posted in South Africa is treated in all respects as inland post and should have South African postage stamps affixed before posting. There are no special postage stamps for Marion Island.
 - (b) Postage stamps affixed to mail matter emanating from Marion Island must not be defaced by placing a rubber stamp impression "MARION ISLAND" over them or in any other matter.
 - (c) No remarks or rubber stamp impressions may be made on envelopes.
 - (d) There is no philatelic value attached to mail matter emanating from Marion Island and philatelists should be discouraged from sending mail matter to Marion Island for posting from there.

Fire Fighting.

3.
 - (a) As all the buildings on Marion Island are wooden, the fire hazard is great and the Standing Instructions of the Division of Civil Aviation entitled "Fire Fighting Equipment on Aeradio Stations" must be complied with.
 - (b) In addition, the following rules must be observed:-
 - (a) Rubbish must not be allowed to accumulate inside buildings;
 - (b) Oil must not be allowed to drip on wooden floors; X
 - (c) Smoking in bed is prohibited;
 - (d) Cigarette butts are to be stubbed in ash trays and not thrown in rubbish bins;

- (e) Inflammable liquids are not to be stored in buildings but placed in fuel dumps properly dispersed away from the buildings.

New Year's Eve Broadcast.

By the kind courtesy and co-operation of the South African Broadcasting Corporation a broadcast is sent out over all transmitters of the S.A.B.C. on New Year's Eve containing messages to and from officials on the island.

Programme to the Island.

On about 15 November each year the Officer-in-Charge shall advise the Secretary for Transport of the name and address of the relative or friend in the Union nominated by each member of his staff to record a message to him, stating at the same time the nearest S.A.B.C. studio where such recording can be made.

Programme from the Island.

On about 15 November each year the Officer-in-Charge will commence preparing his programme for broadcast from the island. This programme, the whole of which shall not exceed seven minutes, will consist of:-

- (i) brief introduction by O.C.
- (ii) O.C.'s personal message
- (iii) personal messages from each member of the staff, preceded in each case by an introduction by the O.C. giving the name and rank of the official about to speak.

Before the O.C. commences the programme he must announce "Standby for recording", then he must count mentally 1 to 10 and then proceed with the programme.

The programme should be rehearsed thoroughly before being put on the air.

The S.A.B.C. will arrange with the island as to when the programme is to be put on the air. This will probably be at the beginning of December.

- (a) Nobody shall leave the immediate precincts of the station without the permission of the Officer-in-Charge.
- (b) When leaving the station parties should consist of at least two persons. Nobody may wander off on his own.
- (c) Parties leaving the station must advise the Officer-in-Charge exactly where they are going and when they expect to return.

INFORMATION TO THE PRESS.

- (a) Members of relief parties are often approached by the press just before leaving or on returning from the island. There is no objection to members of relief parties giving their names to the press or making a

few general remarks but no derogatory remarks may be made or opinion expressed about conditions on the island or about the administration thereof.

- (b) Members desiring to submit articles or information on Marion Island for publication will be allowed to do so provided the draft article is first shown to and approved by the Department.
- (c) The Radio Operator on the island is not permitted to accept messages addressed direct to the press.

HEALTH.

To counteract the deleterious effect on the teeth of the continuous eating of soft cooked foods, members of the staff are required to eat uncooked dried fruit and unsliced biltong and must take the vitamin tablets provided, especially vitamin C, care being taken not to overdo vitamin A.

C.T.8/1549.

DIRECTOR (C.C.E.)

31. 7. 1959

MARION ISLAND : DISCUSSIONS HELD FROM 22nd-
25th JUNE, 1959 :
P.W.D. 5/70/20A AND 5/70/11 :

Attached are copies of memoranda which are marked for your distribution, please.

The salient points of agreement are these:

OCTOBER CHARTER:

- (a) Transport will arrange to charter M5ve II to sail to Marion and back, sailing date between 15th October and 1st November. P.W.D. will pay.

FEBRUARY CHARTER:

- (b) Transport will charter and pay for this ship to sail in February or March, 1959. Leader of P.W.D. will give 60 days notice of date ship required at Marion.

GOUGH/BOUVET:

- (a) No decision was taken about Gough. But Transport will decide what to do on or about 5th August, 1959, and will inform C.C.E. Possibly a combined Gough/Bouvet trip will be arranged for November/December, 1959. A Naval ship may be used. A P.W.D. survey party and possibly artisan(s) for repairs may be required.

NON-EUROPEANS:

- (d) Segregational biases in Transport may make selection of suitable men difficult. C.C.E. is requested to keep the door open. If suitable Europeans are not found, selected non-Europeans may have to go to Marion. No arrangement repugnant to usual S.A. policy will be made. There will be social separation.

FOOD:

- (e) Transport will supply food, beer and cigarettes, recoverable P.W.D.

FACILITIES:

- (f) P.W.D. will enjoy all Transport facilities on the Island.

STAFF:

- (g) Transport will in future send "permanent" men to Marion.

COMMUNICATIONS:

- (h) P.W.D., Cape Town, will in future deal direct with Islands for all repair work, and Islands will not report to Transport. New works will be referred to Transport.

C.T.6/1549.

PIPELINE:

- (i) In future the oil pipe-line is a P.W.D. affair. P.W.D. will supervise its flotation and Transport will supply all labour.

FIRE HAZARD:

- (j) Transport have agreed to instruct Island to remove paraffin heaters from the buildings.

AUXILIARY:

- (k) Transport will tell C.C.E. whether auxiliary at Power Station shall be removed.

SMALL TRACTOR:

- (l) Transport will provide one.

INSPECTION:

- (m) On each annual trip a P.W.D. inspection by Building, Electrical and Mechanical section shall be made, and reports furnished to C.C.E. Transport will withhold their staffs' allowances until P.W.D. reports a "clear sheet".

ENGINES:

- (n) E.E.'s policy of annual return of 2 engines and 1 alternator was adopted.

OVERTIME AND DISCIPLINE:

- (o) Leader will have the ability to pay overtime to artisans and labourers but also to mulet or discharge.

TOOLS:

- (p) P.W.D. responsibility from Quay at Cape Town to shore at Marion, and in reverse. D.R. to pay 75% inventory value on demand against loss at sea.

INSURANCE:

- (q) State employees covered by workmen's compensation. A clear statement is requested of what coverage officials and employees are entitled to, if anything.

INSTALLATION:

- (r) All installations not technical equipment are P.W.D.'s responsibility. This includes the power station and the cranes. The diesel mechanic will maintain the ~~4~~ P.W.D. supplies the parts and P.W.D. will carry out replacement of complete units (alternator or engine).

FUNDS:

- (s) Carry over "Z" money has been combined with the 1959/60 vote, and a total of £33,890 is authorised against 102907. Mr. Stevens will get another £5,000 from Treasury in case a "Gantoon" charter is necessary.

CRANES:

- (t) Outer crane will be given a ± 10 H.P. diesel engine.

OTHER MINOR MATTERS TO BE FOLLOWED UP:

- (i) December 24th request date of probable completion of work on Marion. (C.C.E.)
- (ii) Transport-will cook be European or Non-European and advise D.R. so that correct accommodation can be arranged. Also W/Operator and Medical Officer. Transport say exactly how many passengers and their names and race. As well as priority in case of insufficient accommodation. (C.C.E.)
- (iii) Transport - List of cargo to go in MSwe II 7 days before ship sails. Send incomplete list rather than no list. (C.C.E.)
- (iv) Transport - whether auxiliary engine is necessary. (E.E.)
- (v) Transport - small tractor. (M.E.)
- (vi) Tool authority to D.R. (75%). (Mr. Eagle)
- (vii) Insurance or compensation of men on voyage. (Mr. Eagle)
- (viii) Tell D.R. as soon as Cabinet have laid down their policy. If Bouvet to be done, find another O/C P.W.D. Marion. (C.C.E.)
Conclude charter for October and send 2 copies to D.R.; try to make nearer November 1st than October 1st. (C.C.E.)
Give probable sailing date to Bouvet.
- (ix) T.B. exemption to fit W/T (Mr. Abrahams) should Gantocs be used.
- (x) Xmas gifts to employees.
- (xi) Written ruling on mulets, discharge and overtime. (Mr. Eagle)
- (xii) G.I bonus. P.S.C. re-approval and bedding and utensils. (Mr. Eagle)

R. LEWIS-SMITH;

D.R. : CAPE.

MARION ISLAND : DISCUSSIONS 22nd JULY
BETWEEN M.E. - MR. McALL :

1. Power Station - its engines and alternators are all F.W.D. and not Transport equipment.
2. Cold Room - not recommended by M.E. because of lack of proper technician on the island. He approves, subject to funds becoming available of the supply of one deep freeze unit now, and up to 2 more later should the first prove successful. Type - Barlows Kelvinator 21 cub. ft. chest type £220. M.E. will order this if funds approved. We shall have to consider suitable container to take food from ship's frig. to the deep freeze ashore.

Notes:

Commandant Smit voted against the deep freeze, but this deserves more thought.

3. Landing Stage - Tenders will be called by M.E. within next 2 - 3 weeks, mainly in Cape Town, but also on the reef. He will call tenders for Morris type stream lined tackles.
4. Tanks - M.E. rules we stick to the steel tanks, 26 being already out to tender. But he has no objection to one being bought in Cape Town from funds available. It will be used at the Power Station. This is an "urgent informal" bought by D.S.S. under £300. Has planned 9" x 6" Balau baulks, one pair beneath each tank. The electric motors will be fitted. M.E. will send me copy of pamphlet of successful tenderer's type.
D.R. to buy the starter from government contract in Cape Town. These to be of totally enclosed type. Await result of tenders for motors.

CRANES:

- (a) D.R. to order all necessary parts. But if over £300 ask M.E. to procure T.B. exemption.
- (b) Morris 8 gearbox and clutch are suitable with 10 H.P. engine.
- (c) M.E. will buy the 10 h.p. engine if E.E. will not agree, to fit an elec. motor. Mr. Saychel send sketch of mounting.

BOILER ROOM -

- (a) Line floor, walls and ceiling with sheet aluminium.

DIRECTOR. (M.E.)

COPY OF MEMORANDUM FOR YOUR FILE PLEASE.

R. LEWIS-SMITH.

D.R. : CAPE.

MARION ISLAND : PRELIMINARY DISCUSSION WITH
MESSRS. SPIN & EAGLE 22/7/52 :

(Later Modified)

MEDICAL OFFICER:

Mr. Eagle will apply to various departments for an M.O. for the trip. If place cannot be found for him eventually, we may have to rule him out. But his name should be ready. (Later Transport agreed to do this.)

RADIO OPERATOR:

He will ask Transport to second Mr. Krause, who did the May, 1959 trip, to this dept. for the November trip, unless otherwise provided for in the charter. (Later Transport agreed to request Mr. Krause to take this duty).

M.O. and N.O. :

I was not given authority, but in order to avoid delay at the last moment, I shall have to reserve the right to find them myself if M.O. do not, and absence of anything refusing this will have to be taken as tacit approval.

G.I. LABOURERS:

Mr. Eagle will let me know early whether the bonus system is approved. Unless I am told before the ship leaves, I shall be obliged to commit the government. Reasonably the men must know before they leave.

CLOTHING:

The Department is able to decide what to buy. I can make up the shortages when funds are available provided the articles are not bought until I am reasonably certain they will be needed.
(Later funds furnished and authority given to purchase).

BEDDING AND UTENSILS:

This will be put to Treasury without delay. (Later funds authorized Treasury approval awaited).

FEEDING OF PASSENGERS:

Not discussed, but will be in charter party, and approval can follow.

PAYMENT OF MEN:

Agreed that the rates of wages laid down in P.S.C. 70/21/1 of 9/5/55 applies to whites and non-whites, tradesmen and "workmen".

DIRECTOR (STAFF)

COPY OF MEMORANDUM FOR YOUR INFORMATION, PLEASE.

R. LEWIS-SMITH.

D.R. : CAPE.

MARION ISLAND : DISCUSSION WITH
MR. VAN WYK - 22/7/59 :

1. WAGES - decided that:-

- (a) Tradesmen be paid £20.10. -. per week inclusive, but that I have the ability to deduct the difference between his normal weekly rate and £20.10. -. should I decide this to be necessary. This will be done only if in my opinion the man is not pulling his weight or will not subject himself to discipline.
- (b) The same shall apply to labourers. The "difference" being his 10/- a day allowance.
- (c) I shall have the ability to pay overtime over the £20.10. -. , but the times for this will be in my discretion. This shall not restrict the men in any way in working whenever I require them to. It will not be taken as a right.
- (d) That I have the power to discharge an employee taking effect from when he is returned to the Union. This is if there is no other recourse, and on condition that I supply a statement on my return, saying why.
- (e) A mans' tools between the quayside in Cape Town and the shore at Marion, and the same in reverse, are the Department's responsibility, provided the tools are looked during the voyage. Should tools be cost, I must say:-
 - (i) original cost,
 - (ii) value at time of loss,
 - (iii) replacement value.

DIRECTOR (STAFF)

Copy of memorandum for your file. The above was slightly amended at a later discussion, and your instructions in writing are awaited, please.

B. LEWIS-SMITH.

D.R. : CAPE.

MARION ISLAND : DISCUSSION WITH E.E. -
23/7/59s

1. E.E. Agrees in principle to purchase 4 new Deutz engines in Cape Town. He will arrange purchase when extra funds are made available.
2. Agrees to Lester's proposals in report 26/5/59., and adds:
 - (a) Mr. Graham should sum up what should be done, and get on with it.
 - (b) Bear in mind that the cables from P.S. to M. House should have been parallel, and avoid too much voltage drop.
 - (c) Mr. Graham to requisition immediately for all new equipment which he thinks necessary at the Power Station. Bear in mind re-use of hydraulic starters.
 - (d) Will not agree to electric power for the crane because of the great initial pull - therefore S.I.W. (E. & M.) must give M.E. details immediately from which to order the 10 H.P. engine (or whatever H.P. S.I.W. (E. & M.) decides upon.
3. Agrees to the pumping scheme suggested by Lester in the same report, but insist that the micro limit switch be outside of the tank at the Power Station.
4. Shall the Department remove the auxiliary in the Power Station entrance? Later decided that Transport should make their case why it should be kept. Commandant Smit requested to do so.

DIRECTOR. (E.E.)

Copy of memorandum for your file, please.

R. LEWIS-SMITH.
D.E. : CAPE.

MARION ISLAND : TELEPHONE DISCUSSION WITH
CAPT. METHACK - 23/7/59 :

Without Prejudice:

BOATS:

1. He would prefer P.W.D. to arrange boats. I put that responsibility back, on his shoulders, but agreed we shall say whether any boat he suggested would be suitable.

RECOMMENDATION:

2. He thought alterations could be made to take 12 European passengers. Part of the fox'le could be converted for up to 12 non-Europeans. W/T.op. must go but may have to leave Doctor behind if no berth for him.

INSURANCE:

3. This cost a little more, and taking extra passengers presents no problem in this respect.

BALLAST:

4. Will be necessary. He must arrange it, but we shall assist if it is government-owned, e.g. S.A.R. & H. sleepers, should he request us to use our good offices with the department concerned.

GOUGH:

5. He is interested in this too.

RETURN TRIP:

6. February/March can be done, at (say) 2 months notice.

PAYMENT:

7. He lost money on last charter. Requires more this time.

MOVEMENTS:

8. He will be in Cape Town between 29th July, 2nd August when M3we III is in harbour.

DIRECTOR. (C.C.E.)

Copy of memorandum for your information, please.

R. LEWIS-SMITH,

D.R. : CAPE.

- Q. When P.W.D. are resident, can they be assured of:
- (a) Enjoyment equally of all facilities Yes.
 - (b) Full use of Transport's stores. Yes.
 - (c) Waiving of scrutiny of mail. Yes.
 - (d) Proper accommodation for men and office/bedroom for Leader. Yes.
 - (e) A careful decision of who is in charge of what and whom, and how O/C. and Leader function their separate ways. Mr. Engelbrecht will go.
 - (f) Assistance from Transport staff when they are available and in time of need, off-loading, etc. Yes.
 - (g) Privileged W.T. facilities for matrimonial troubles. Yes.
- Q. Can the Diesel Mechanic on island fit up the engines we deliver, aided at the outset by P.W.D. electrician, and later by P.W.D. mechanics.
- A. Yes. Also
- (a) P.W.D. will purchase new engines and alternator.
 - (b) P.W.D. shall be responsible for supply of spares.
 - (c) Island/Transport mechanic will maintain.
- Q. Will island be instructed to remove the 15 H.P. auxiliary engine from the power station so that the 35 H.P. Deutz can be put in.
- A. Transport will take this up with H.E.
- Q. Can green store be cleared for P.W.D. workshop. Yes.
- Q. Can Islands deal direct with us for minor repairs and avoid
- (a) delay, (b) duplication of orders. If so they should be instructed accordingly.
- A. Yes - unconditionally.
- Q. How much cargo will Transport send in Oct./November, 1959. Any men? (Berths at a premium). Livestock?
- A.
- (1) men - only cook.
 - (2) cargo - provisionally, 30 tons.
 - (3) usual livestock.
- Q. Can we share Transport beer, and/or cigs.
- A. Tell Transport what we require and they will then decide.
- Q. Whose responsibility will the pipe line be in future trips?
- A. The pipe line and pumping will be P.W.D. under jurisdiction of a senior P.W.D. official. But Transport will arrange the labour.
- Q. Can P.W.D. participate in Xmas broadcasts. ... Yes.
- Q. How will Transport pay for the 40 tons oil which will be pumped ashore in Feb/March, 1960, and then on future expeditions. (Will advise us).
- Q. Will Department make Krause available. Yes.
- Q. Will Department (Civil Aviation) extent licence 81 P. ... Yes.

TRANSPORT - 24/7/59 :

MARION ISLAND - GENERAL MEETING.

WORK ON ISLAND.

- Q. When will return trip sail? No. of P.W.D. men taken depends on the answer.
- A. In February or March, depending on reports of progress from Leader, P.W.D. November trip P.W.D. charter, Feb./March trip a Transport one.
- Q. Propose to take some N. Europeans. Any objections which will outweigh the advantages?
- A. This will be put to the Secretary of Transport. It was put and there will be no objection provided coloured labour does not get more than European - must quote my N.E. labourers' salary scales and allowances. Mr. Eagle asked to do this.
- Q. Propose to second S. van Vuuren, labourer, on island. Any objections. Will Transport arrange.
- A. Yes. He will be asked. (Later Transport said no.)
- Q. Cook on island unwilling to cook for the whole party. He will, if instructed. But he is not a cook, he is a policeman. Will Transport ask S.A.R. for a permanent, well trained cook. They have 100 dining cars, presumably as many cooks. Failing this, Defence Department.
- A. Transport will ask these Departments. This was done by Commandant Smit. S.A.R. are too busy to spare one over Xmas, but can provide N.E. one.
- Q. The food is enough in quantity. But there is room for improvement in variety. Will Transport (a) be willing to take the advice of the Department of Nutrition who have provided a scheme to provide a balanced diet? (b) If so, will they buy certain food off contract, where that on contract leads to monotony, sausage, e.g. (c) Instruct the cook in his work, using the Dept. of Nutrition's scheme, before he sails. (d) and if they agree, order sufficient food for the P.W.D. trip in November and P.W.D. pay back so much a day?
- A. Yes will consider this, but to be referred to Transport Storekeeper. Agreed Transport will order sufficient food for all. Copy of suggested diet system and recipes were handed to Mr. van Nickerk.
- Q. Will Transport send seeds, celery, radish, etc. and plant them.
- A. Certain germ on island prohibits growing of them.
- Q. Will they take over and develop hydroponics or ground cultivation in a glass-house? This for tomatoes, celery, lettuce and the like.
- A. Yes.
- Q. If trout can be spawned, will Transport permit their introduction to the Island. The sea has few fish to offer.
- A. Yes.

- Q. Will Transport supply powered tractor, refer M.E. Yes.
- Q. P.W.D. propose annual inspection certificates. Any objection.
- A. As discussed with old O/C. and new O/C.

.

SUGGESTIONS:

- (a) Medical orderly/Storekeeper/farmer. Reduce one labourer. (No comment).
- (b) Present labourer is not doing proper jobs of maintaining insides of buildings. There seems little encouragement for him to do so. Suggest permanent (P.W.D.) labourer or else non-European in latter case, two, for company's sake. (No comment).
- (c) Endeavour to send permanent men, not take them from the street. In any case do something about those who do not do their job. (Will be done).
- (d) Instruct removal paraffin heaters from Marion House. Fire Hazard. (Yes.)
- (e) Introduce trout. (Yes.)
- (f) Xmas hamper or some token from the Department for their men on the island. (Yes)
- (g) Discontinue sending "fizz" drinks, and increase the essence or fruit juice ones. Give O/C. permission to throw away beer bottles. Suggest canned beer instead of bottled. (Yes)
- (h) Ask "Film Services" to send educational films in addition to the popular ones now being sent. (Yes)
- (i) Always nominate in the charter, the official to whom the Captain can turn, in the ship, for a decision. Alternatively, if there isn't one, one official at each island, whose instructions he shall take should he request them. (Yes)
- (j) Discontinue "round trips":
- (1) fresh food wasted,
 - (2) lowered morale of passengers,
 - (3) water fouled at end of trip,
 - (4) cost in passengers salaries.
- (k) In future have Agricultural Officer (many fruit inspectors induce) examine fresh produce before loading. Order better quality. Pack meat on dry ice, rather than ice blocks.

NOTES OF ISLAND COMMITTEE :
MEETING WITH C.C.E. & M.E.

1. The fate of Gough will be decided by the Cabinet on 4/8/59.
2. Mōwe booked provisionally by Commandant Smit for October (one or more islands) and end of Feb. for the return trip.
3. The date for the return trip will be set by P.W.D. progress reports.
4. The Cabinet will be asked for a long range policy.
5. Suggestion for a windcharger at Marion dropped.
6. Diesel Mechanics will in future be permanent men from Defence, G.G. or P.W.D.
7. Commandant Smit may after cabinet decision arrange for a Bouvet trip in November, 1959 to put a survey party on Gough and work out whether a new site be used or old one and what shall happen to ex'g buildings.
8. P.W.D. will pass Government order on Transport for 32 plastic cans @ £80.
9. The water supply at Marion from both sources is bacteriologically fit for drinking. Chemical reports awaited.
10. P.W.D. requested to arrange in charter in October for return of jerry cans and other stores which are worth returning, but not if it means expensive demurrage.
11. Transport have £30,000 this year for island work.
12. Commandant Smit rejected the deep freeze proposal. I think this should not be dropped. I support the Medical Officer who proposed it.

DIRECTOR. (C.C.E.).

Copy of memorandum for your file, please.

R. LEWIS-SMITH.

D.R. : CAPE.

MARION ISLAND : DISCUSSION C.C.E., MR. STEVENS,
M.E., E.E. AND STAFF - 25/7/59.

- (a) Purchase of Walkie Talkie. Agreed in principle to be bought on plant.
- (b) E.E. wants 2 engines and 1 alternator returned to the Union each time. This agreed to.
- (c) Suggest a powered tractor to pull them up and down from the power station. I am to put this to Transport with a recommendation that Mr. Cawood helps them choose the type. (Later Commandant Smit agreed to arrange this).
- (d) In future, the P.W.D. inspector will be required to provide a certificate that P.W.D. installations have been looked after during the year, and if they haven't a recommendation what action should be taken. Transport will be requested by P.W.D. to withhold the island allowances until this certificate has been rendered. (Later Commandant Smit agreed to this, conditionally).
- (e) Staff will again ask P.S.C. whether overtime can be paid. Tentatively agreed I pay the men their normal £20.10. - for a number of hours per week fixed by me (60 hours subject to adjustment) and straight overtime rates for anything in excess of that. But staff will see that Audit have no axe to grind.
- (f) Question of disciplinary action as discussed with Mr. van Wyk will be put to Govt. Law Advisor by Staff.
- (g) Removal of the auxiliary in the power station. I am to remove it unless Transport puts a case for its retention or replacement. For night reading, battery lamps can be supplied by Transport. (This done).
- (h) Staff will ask Defence for M.O. He must be warned to expect poor accommodation. If M3We chartered, endeavour to include as the ship-owner's commitment. (Later Transport took this responsibility).
- (i) Staff will ask Transport for Mr. Krause. If M3We goes endeavour to include as ship-owner's commitment. (Transport agreed to do so).
- (j) G.I. Labourers bonuses. Staff will put to P.S.C./Treasury.
- (k) Clothing. I make up the deficiencies. Mr. Abrahams will say against which vote. Ships' officers regarded as our employees. (Later this ruled by A/0 to be plant.)
- (l) Bedding and utensils. Staff will procure Treasury approval for each man's individual requirements.
- (m) Engines and Alternator ... £2,500.
Elect. ... 950. Minute dated 25/6/59
Miscellaneous. ... 900. approved.
£4,350.

Note: Mr. Abrahams rules that 1 Engine at Aandrag in Bellville must be credited to Miscellaneous Revenur or Loan Recoveries.

Also, in principle, one deep freeze unit and container (This later was to be held in abeyance).

C.C.E. suggests an iron and board @ ± £40, and asks me to include this.

See D.R.'s minute of 25/2/59.

Items:

- (b) Charter - approved.
- (c) Alterations approved. (Try to make owners put in their charter).
- (d) Boats and fuel - approved (- ditto - - ditto -)
- (f) M/O and W/Op. " (- ditto - - ditto -)
- (g) Labour : Put to P.S.C./Treasury by Staff.
- (h)
- (j) Clothing - approved. Bedding and utensils to P.S.C./Treasury.
- (k) Feeding of passengers - approved (Try to get into charter).
- (n) Harbour charges - approved. (- ditto -)
- (o) Cargo nets and slings - approved, await item on plant; invite urgent informal tenders (up to £300). But only if "Gantoo" is taken.
- (p) Restoration approved if Gantoo used. In charter if M3ve.
- (q) Storm damage - ditto - - ditto -

- 3. (i) Wages on voyage. Approved.
- (ii) Wages if delay "
- (iii) Extra wages. Depends on Staff's representation for overtime to Treasury/Audit.
- (iv) Provisions on Island - approved. Transport recover from P.W.D.
- (v) Plant approved, but extra funds will be given for diving suit, cargo, nets, etc.

Mr. Abrahams will get T.R. exemption to hire Marconie W/T if Gantoo goes.

Rum is food.

I may substitute Duffels for rain coats and the same with other clothing at my discretion.

Hydroponics: £200 approved.

Watering pipe: £250 "

Loss of Tools: Mr. Abrahams will endeavour to arrange for D.R. to have ability to pay men up to (say) 75% of inventory value (which I fix before men leave). This will be available immediately on the man's return.

Mr. Cawood has revised his estimates thus:

(a) Landing stage	£1,800.
(b) Hoists.	400.
(c) Pumps and motors...	200.
(d) Pipeline.	£1,500.
(e) Steel piping.	£1,000.
(f) Modify crane.	400.
(g) W/Machine & hydro.	500.
(h) Tanks (no supports)	<u>£2,000.</u>
	<u>£7,800.</u>

DIRECTOR (C.C.E.)

Copy of memorandum for your file please.

R. LEWIS-SMITH.

D.R. : CAPE.

MARION ISLAND : CHARTER DISCUSSION : COMMANDANT SMIT,
CAPT. MEIHACK, MR. WESSELS & MR. VAN NIEKERK.

OCTOBER, 1959 TRIP.

- (a) Transport will send a Senior Officer (Mr. Engelbrecht) to Marion in October to arrange a satisfactory liason between P.W.D. and Transport staff.
- (b) They would like if there is place, to send a Stores official. If not, Messrs. Engelbrecht and McAll and O/C. will form Board of Survey on Island.
- (c) The contract with Capt. Meihack be made final only after the Cabinets meeting on the 4th August.
- (d) The meanwhile Capt. Meihack will find suitable boats and work out his probable costs.
- (e) Short wave radio shall be fitted at the shipowner's expense.
- (f) Transport will make the radio operator, Mr. Krause, available for this trip.
- (g) Transport will endeavour to put aboard a doctor/dentist from Defence at Transport's expense.
- (h) Transport will send 50 sheep and 50 fowls.
- (i) In addition the usual 1000 lbs. fresh meat and some fruit and vegetables. Transport will arrange dry ice for these and P.W.D. will be requested to find some form of container to hold the meat and Agriculture will be requested to inspect this produce before the ship sails.
- (j) The provisional sailing date is 15th October, and if P.W.D. are not ready, it constitutes breach of contract.
- (k) The offloading time allowed this trip will be 120 hours, then 5 day demurrage, and a lower demurrage rate thereafter.
- (l) Transport's cargo will be up to 30 tons, and P.W.D.'s about 150 tons.
- (m) That the P.W.D. appoint their senior official to be the Charterer's representative for this trip, and they will appoint their own when Transport charter the ship.
- (n) Up to 22 passengers will be taken this trip, but on the return trip in February, 1960, the total passengers could be 32. Capt. Meihack states he can convert bridge deck, fore and after between deck to take the 32 passengers, provided the Charterers sees that their employees are warned to expect a cramped return trip. Regulations for safety of life at sea could be complied with. Provided further that he is allowed to make for P.E. and discharge some passengers there if necessary, and then continue to Cape Town.
- (o) That Möwe II would be used.

A GOUGH CHARTER:

- (a) A clause should be included allowing ship to sail via Tristan da Cunha and return via Tristan so that their boats and men (T.D.C.'s) can be used. Tristan men to be accommodated in fox'le.

FEB./MARCH, 1960 MARION CHARTER:

1. Transport agreed to include a clause instructing owners to take on the pipe-line, fit their pumps to pump at a minimum of 70 lbs. max. of 100 lbs. To put out the pipe-line and pump the oil ashore from his ship's bunkers. To retrieve the pipe-line at the conclusion of pumping, but to do so by hand regardless of slow rate of inhaul. A motor boat may assist if the Capt. thinks it necessary. This operation will be under the Captain's command, as required by the government representative Mr. , whose instruction shall be taken except where the ship stands into danger.
2. Transport to arrange payment for amount of oil put ashore in Feb./March, 1960.

FURTHER DISCUSSION WITH COMMANDANT SMIT
AND MR. WESSELS - 25/7/59 :

- (1) If Bouvet and Gough trip are approved by the Cabinet Comdt. Smit is in favour of McAll being in the ship that does this, but the replacement for Marion be carefully chosen for his ability to get along with all and sundry on Marion.
- (2) O/C. Marion will not scrutinise P.W.D. mail - Leader of P.W.D. will have to.
- (3) Transport will send a Principal Meteorologist, Mr. Engelbrecht, to arrange a satisfactory liason between P.W.D. & Met. on the island.
- (4) Transport will advise Mr. Hicks whether they still need the auxiliary at the Power Station.
- (5) P.W.D. will participate in Xmas Broadcast.
- (6) The question of the "tractor" will be dealt with telephonically Transport - M.E. They will pay.
- (7) Transport agree to P.W.D. inspection certificates, provided both old and new O/C.s on the island are shown what the shortcomings are, if any.
- (8) I cannot have either Island labourer. But they may work with P.W.D. when off duty if O/C. permits them.
- (9) They will give each man on the island a token Xmas present. What about P.W.D. (Later C.C.E. asked to go into this).
- (10) Mr. Gouws agreed that one of the Non-European labourers could do washing up if their one on the island could not cope. The labourer returning to the Union need not be replaced.

DIRECTOR (C.C.E.) : COPY OF MEMORANDUM FOR YOUR FILE PLEASE.

R. LEWIS-SMITH.

D.R.: CAPE.

FIRE FIGHTING EQUIPMENT ON AERADIO STATIONS.

1. Although fire prevention is of primary importance, it is necessary to have adequate fire fighting apparatus on all Aeradio stations as added protection.

INTRODUCTION.

2. This instruction lays down the Public Works Department regulations concerning the distribution of fire fighting equipment. Additional information is given only as a guide to the Senior Mechanician as to possible distribution on the station. Where the existing equipment on the station is less than that postulated by the P.W.D. the Senior Mechanician shall contact the District Representative of the P.W.D. and, after consultation with him, have the necessary equipment installed.

SCOPE.

3. The P.W.D. regulations state that extinguishers should be installed on the basis of a minimum of two for every 3,000 square feet. If the area is 1,000 square feet or less, one only need be provided with a maximum distance of travel of 50 feet to reach an appliance. In the case of great hazards, the distance of travel should not exceed 25 feet. This applies to extinguishers of the following capacities:

P.W.D.
REGULATIONS

Soda Acid	2 gallons.
Foam	2 gallons.
C.O. ₂	15 lbs.

Where the risk is sub-divided, e.g. separate rooms, and C.O.₂ is provided, two of the 5lb. size may be provided.

4. Headquarters suggest the following possible distribution of extinguishers.

5. Carbon Dioxide (CO₂), which is used for electrical and radio equipment since it causes no damage to the equipment, may be distributed as follows:-

C.O.₂

- One of 15 lb size Engine (Diesel etc.)
- One of 15 lb size HF/DF Hut.
- One of 15 lb. size Receiver Room.
- One or more to each Transmitter House, depending on Area and amount of equipment.
- One to each Landing Aid.
- One to each Landing Aid Marker.
- One to each Battery Room.
- One or more to each Standby Equipment Room, depending on area and amount of equipment.

6. Foam to be used for petrol and oil fires etc., never for radio equipment, may be distributed as follows:-

FOAM

- One to each Engine Room
- One to each Fuel Store.

7. Soda Acid, to be used for wood or paper fires, to be distributed as follows:- SODA ACID.

Two to each building (see Para 3.)

8. Water and Sand buckets shall be located in pairs - one bucket of water and one of sand - outside each building. The quantity required will depend on the size of the building and the nature of the hazard. WATER & SAND.

Note: Water and sand buckets must not be placed at the HF/DF Hut or near the S.B.A. aeriols. HOSE PIPE.

9. Where water supplies are adequate sufficient hose pipe shall be available to cover the building concerned. The type of hose shall depend on the water connection provided at the station. HOSE PIPE.

10. All personnel shall make themselves familiar with the methods of using the extinguishers provided. Instructions on the use and maintenance of extinguishers will follow this instruction. USE

11. A label shall be attached to each extinguisher, if not already provided, and the date and initials shall be marked thereon by the person making the inspection. Tests and inspections on the extinguishers shall be performed by the Senior Mechanician, unless the airfield has a Fire Master, in which case the Fire Master, shall perform the inspection. However it is the duty of the Senior Mechanician to advise the Fire Master that an inspection is due. INSPECTIONS

THE END.

CARBON DIOXIDE ("LUX") GAS TYPE EXTINGUISHERS.

1. This instruction lays down general rules of operation SCOPE
of the Carbon Dioxide fire extinguisher.
2. Lift the extinguisher from its bracket and carry it USE
to the scene of the fire.
3. Remove the discharge horn from its clip on the side
of the extinguisher and point the horn at the fire.
4. Pull out the safety pin which prevents the valve from
being accidentally opened.
5. Turn the valve as far as it will go (usually about one
turn).
6. Direct the gas at the base flames and work forward.
7. The fire will be subdued very rapidly, but the gas
should not be shut off immediately. Continue to envelop
the whole affected area for approximately 5 seconds after
the fire is out. The gas is very cold and the frozen
particles will cool down the hot surfaces and prevent reflash.
The valve is not gas-tight once it has been opened and,
though it will appear to be closed when the gas is shut off,
the remainder of the contents will leak away. This leakage
is intentional and provided to ensure that the extinguisher
shall be fully recharged once the valve has been opened.
The temporary shut-off is provided so that the gas may be
conserved whilst manoeuvring about a fire.
8. Weighing is the only method of determining whether the RE-
machine is fully charged, and must be undertaken at least CHARGING
once annually to detect leakage or accidental release. If
any change in weight is noticed, recharging must be under-
taken at the earliest possible date, but if the extinguisher
shows no loss of weight it need not be emptied and re-charged, as
the contents do not deteriorate with age. If the sealing
wire on the pull-out pin is broken or the pin found to be
defective at any time, immediate re-weighing is imperative;
if the machine shows no loss of weight the sealing wire must
be replaced.

NOTE: Weighing should be done on the nearest public
scale, e.g. Railway Station, Municipal scale,
if no other scale is available.

Division of Civil Aviation,
Aeradio Branch,
Standing Instructions (Technical).
Distribution: ABCDE

MISCELLANEOUS
FIRE
A5000.

9. When an extinguisher has been discharged either partially or fully, for fire or any other purpose, it must be re-charged as soon as possible. The District Representative of the P.W.D. should be advised without delay when the extinguisher requires to be refilled.

THE END.

REFERENCES: P.O. Eng., Instr.,
Protection,
Fire.
A4001 and A5001.

FOAM TYPE EXTINGUISHERS.

1. This instruction lays down the method of operation of the Foam type extinguisher. SCOPE
2. Lift the extinguisher off its bracket and stand it on the floor. USE
3. Release and pull up the handle on the top of the cap. This handle must be pulled out to its full extent and maintained there, otherwise the extinguisher will fail to operate properly.
4. If the extinguisher has a flexible discharge tube grasp it between the thumb and index finger before removing it from its bracket. It is important that this should be done correctly. The wrist should be turned so that the thumb points to the floor when grasping the nozzle.
5. With the nozzle held between the thumb and index finger lift the discharge tube and grasp the ring handle on the top of the extinguisher with the same hand and carry it to the scene of the fire.
6. If there is no flexible discharge tube simply grasp the extinguisher by the ring handle and carry it to the scene of the fire.
7. Turn the extinguisher upside-down and shake vigorously. This will assist in generating pressure quickly.
8. Direct the jet at the base of the flames unless the fire has occurred in an inflammable liquid, in which case direct the Jet against the opposite wall of the vessel containing the liquid, so that the foam will settle softly over the surface and so smother the fire. If the jet is directed into the liquid it will splash the fire about and make matters worse. Highly flammable fires must be smothered.
9. The extinguisher must be inspected at least once annually and all its parts examined for deterioration or injury. It must be verified that the nozzle is not clogged. INSPECTION
10. The chemicals used are bicarbonate of soda and a foam producing agent dissolved in water (in the outer compartment), and aluminium sulphate dissolved in water (in the inner compartment). These chemicals must be tested as follows:- Remove the inner container from the extinguisher. Take two clean sticks. Dip one into the outer compartment and the other into the inner, thus obtaining a drop of each of the chemical solution. Touch the two together. If foaming results the solutions are in order. RE-CHARGING
11. On completion of the test each solution should be stirred well before the inner container is replaced.

Division of Civil Aviation,
Aeradio Branch,
Standing Instructions (Technical)
Distribution: ABCDE

MISCELLA-
NEOUS
FIRE
A 5001.

12. The extinguisher should be discharged and washed out with clean water every three years, and then recharged. Full instructions for re-charging are printed on the refill canisters.

13. Refill canisters may be obtained from the P.M.D.

ACTION

THE END.

APPENDICES:

REFERENCES: P.C. Eng., Instr.,
Protection
Fire
A 4002 & 5001.

USE AND MAINTENANCE OF SODA ACID TYPE
OF FIRE EXTINGUISHER.

1. This instruction lays down the method of operation of the Soda-Acid type of fire extinguisher.
2. Before removing the extinguisher from its bracket grasp the nozzle of the flexible discharge tube between the thumb and the index finger. It is important that this should be done correctly. The wrist should be turned so that it points to the floor when grasping the nozzle.
3. With the nozzle held between the thumb and index finger lift the discharge tube and grasp the ring handle on the top and bottom, with the discharge nozzle also held in the top hand.
4. With the other hand grasp the cross-handle on the bottom, of the extinguisher. The extinguisher is now held top and bottom, with the discharge nozzle also held in the top hand.
5. Lift the extinguisher and carry it to the scene of the fire.
6. Turn the extinguisher upside-down and shake vigorously. This will assist in generating the pressure quickly.
7. Now let go the ring handle but keep hold of the discharge nozzle. The extinguisher is now hanging upsidedown in one hand with the nozzle in the other to direct the jet to the best advantage on to the flames. By grasping the nozzle correctly from the outset, there is no danger of the discharge squirting in all directions when the extinguisher is turned upside-down.
8. Direct the jet at the BASE of the flames and follow the flames with the stream. Stand as close as possible to the fire and play the jet steadily - do not waggle it about - the force of the stream plays an important part in extinguishing the fire.
9. The chemicals used are bicarbonate of soda dissolved in water in the body of the extinguisher, and commercial concentrated sulphuric acid in a small open glass bottle fitted with a loose lead stopper and suspended in the top of the extinguisher just below the cap. These chemicals must be tested in the same way as for foam extinguishers. In addition, if the acid level is more than $\frac{1}{4}$ inch above the level line marked on the bottle, it indicates that moisture has been drawn into the bottle and that the strength of the acid has been reduced. The bottle should be emptied and fresh acid poured in, to the correct level. Care should be taken to replace the lead stopper loosely.
10. On completion of the test the soda solution in the extinguisher should be well stirred before the acid bottle is replaced.

SCOPE

TURN OVER
TYPE USE.

CONSTRUC-
TION AND
TESTING.

11. The quantities of chemicals which should be used in recharging a 2 gal. machine consist of 1 $\frac{3}{4}$ lbs. of bicarbonate of soda and 2 $\frac{3}{4}$ fluid ozs. (or 4 ozs. by weight) of concentrated commercial sulphuric acid. The soda solution must be thoroughly mixed outside the extinguisher, the water to dissolve the soda should be hot (not boiling), and the mixed solution put through a fine strainer (cloth) before filling the extinguisher. The sulphuric acid should be poured into the bottle to the level line and then covered with the lead stopper and inserted vertically in the cage provided in the neck of the machine. It is essential that a loose lead stopper be placed in the acid bottle before sealing up the extinguisher. The stopper MUST be loose so that it will fall out easily when the extinguisher is inverted.

QUANTITIES OF CHEMICALS AND FILLING.

12. The procedure for the Plunger type soda-acid extinguisher is the same as for the turn-over type except for the following steps. At the scene of the fire stand the extinguisher on the floor.

PLUNGER TYPE AND USE.

13. If a plunger guard is fitted over the plunger lift it off. Strike the plunger a sharp blow with the base of the open hand, driving it in to its full extent.

14. Now direct the jet at the base of the flames following the flames with the stream.

15. In this extinguisher the sulphuric acid is contained in an hermetically sealed bottle, and does not require to be tested. Cracked bottles should be replaced.

CONSTRUCTION AND TESTING.

16. It is not necessary to test the soda solution but it should be poured into a bucket and well stirred before replacing in the extinguisher. The level of the solution should be checked and if it has dropped due to evaporation, water should be added to bring the level up to the proper height.

17. The soda-solution is mixed as for the turn-over type, and the acid bottle need only be checked before placing in the cage provided in the neck of the machine, prior to screwing down the cap of the extinguisher.

18. Both types of extinguishers should be examined at least once a year for deterioration and clogging of the nozzle.

PERIODICAL EXAMINATION.

19. The extinguishers must be discharged and washed out and cleaned with water and refilled once every three years.

20. Refill mixtures may be obtained from the P.W.D., on application.

THE END.

REFERENCES: P.O. Eng., Instr.,
Protection.
Fire.
A.4004 & 5001.