

2326 N N N

HYDROGRAPHIC DEPT. ADM.

TIDE GAUGE.

CONNECTED FILES.

NUMBER

I think this would be a good thing and those Local Government Officials I have spoken to on the subject seem to welcome it.

There should be no structural setbacks to installing a tide guage on the Government Jetty as long as there is no protrusion likely to make things difficult for those small boats wishing to lay alongside. If rigidity is necessary then a guage could be installed at the end of the concrete structure or even to the hulk, there would be approximately four feet of water available at the lowest of tides . instruments could. if necessary. be remoted to the warehouse . I can see no great objection to BAS looking after the guage if this is the intention, presumably all that would be involved is the changing of charts and the replenishment of recording ink plus the regular visits to check that all is working . Main installing would , presumably . be done by H.M.S. PROTECTOR and they could carry out an annual inspection of the mechanical and electrical parts.

2. Kluft

tehall 9000, ext. 43

H.5310/61

HYDROGRAPHIC DEPARTMENT,
ADMIRALTY,
WHITEHALL,

LONDON S.W.I

19. November 1963

for fle

Dru Sin Edwin

May I refer to my letter of the 10th May 1963 concerning establishment of an automatic Tide Gauge in Port Stanley and you very kindly invited me to discuss it with you at that excellent lunch.

I now have some information that it will be delivered in about three months' time and that, with luck, it should arrive in Port Stanley about three months after that. I will send you separately details of the gauge itself and what is required for installing it, as well as a more accurate time of arrival so that you can be all ready to go ahead with the installation, as you so kindly suggested you would do.

Best repeds.

your aways

£ 3. Long

H.E. Sir Edwin Arrowsmith, K.C.M.G.,
Government House,
Port Stanley,
FALKLAND ISLANDS.

Telephone: GLAdstone 3366 Extension:

Planddress any reply to THE HYDROGRAPHER quoting H 5310/61.



HYDROGRAPHIC DEPARTMENT
(ADMIRALTY)
OXGATE LANE

CRICKLEWOOD LONDON, N.W.2

2 21

By Air Mail

39 November, 1963.

Sir.

You may be aware that H.E. The Governor has kindly undertaken to have an automatic tide gauge installed at Port Stanley, the gauge being supplied by this Department.

This gauge has now been ordered and it is hoped to ship it out to the Falkland Islands in about 3 months, time.

The installation requires a vertical pipe, the top of which would normally be at the level of the deck of the jetty where the gauge is installed, and of such a length that it would be capable of recording the highest and lowest tides which could ever occur.

It has been estimated that the length of pipe required for the tidal measurement would be about 12 feet; in addition there is the length required to span the distance between the highest possible tide and the level of the jetty.

The pipe should have an internal diameter of 2 feet and I would be grateful if you would inform me whether piping of these dimensions is available at Port Stanley. If it is not available, we shall need to know the vertical distance from the surface of the jetty to the highest high water so that the correct length may be sent. It would be useful if measurements could be taken on the occasions of very high tides. The highest tide of the year is predicted to occur on 31st December at 5.40 a.m. but the following day it should be almost as high at 6.30 a.m.

It would also be helpful if you could inform us where it is intended to erect the gauge which should, ideally, be housed in a small hut provided with some kind of heating.

More precise details concerning installation will be forwarded when the details requested are known.

I am, Sir,

Your obedient Servant,

· HYDROGRAPHER.

The Officer-in-Charge, Public Works Department, PORT STANLEY, FALKLAND ISLANDS.

Copy to:-

H.E. The Governor, FALKLAND ISLANDS.

See 12

2nd January, 19 64.

It is request that, in any refel-ence to this mental randum the above number and date should be quoted.

No.

DEC 1964 FALKLA, D IJLA ...

WIAL SECRETARY

From: Superintendent of Works,

P. W. D.

Stanley, Falkland Islands.

The Honourable, To:

The Colonial Secretary,

STANLEY.

SUBJECT :-

Automatic Tide Guage.

Information required by Hydrographic Dept. (Admiralty).

There is no piping of the required diameter available at Port Stanley.

The vertical distance from surface of the floor of the Aviation Dept Office, to the highest high water, recorded 6 a.m. on 31st December, 1963 was 3.99 ft and vertical distance at low water of the same tide 10.32 ft, measurement to sea bed 16 ft.

The most suitable place for the gauge to be installed is the Aviation Dept Office which is sited on the end of Government Jetty and has the necessary heating already at hand (Electric Tubular Heating).





H.C.S.

I attach papers on Tide Gauge. A recent letter referring to the letter of May 10th 1963 is with Doug Morrison, awaiting link up with these papers. So far, Len Picton has not been put in the picture.

Fame Read Private Secretary 3.1.64.

blo on fee

PROPOSAL FOR AUTOMATIC TIDE GAUGE AT PORT STANLEY

- 1. The proposal comes from 3 different considerations:-
- (a) Political, in view of Argentina's inclusion of Stanley as a Standard Port in their tables.
- (b) Practical, because there is justification for one Standard Port in the area, and Stanley seems the most suitable place to maintain a permanent gauge.
- (c) The Special Antarctic Oceanic Working Group have recommended a gauge here, inter alia.
- 2. Cost of gauge would be in region of £100 plus costs of installation. It would be necessary to house the gauge in a heated hut.
- 3. Any reasonably intelligent member of the Harbour Staff could be trained to maintain the gauge. The important thing is to have someone who takes a genuine interest in it.
- 4. We would assist with specifications and the choice of gauge, and would give instructions for operating it. Erection of a gauge is a simple piece of engineering.
- 5. Govt. Jetty is suggested as a possible site.
- 6. Finance is the tricky problem. Evidently this would be a Govt. commitment, but tide gauges in Commonwealth territories is not normally financed by Admiralty. More usually it is the appropriate Colonial authority. Once the need is agreed, I think that the Colonial Office might be asked to finance it.

- 7. Maintenance involves the following:-
- (a) Daily checking of the time and height setting and recording on the check sheet.
 - (b) Weekly Changing the chart on the gauge.
 - (c) Monthly Forwarding the records to us.
- (d) Occasional general maintenance of the gauge in good mechanical order, inspection of the inlet from time to time and ensuring that the tube does not get silted upi.

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Discussed with S/PW. S/PW says that when he wrote folio 7 he attached a letter to it from the Admiralty. Chief Clerk, please find this letter and bring up together. The answer to the Admiralty must go on the next mail.

2326 8th January, 1964. WT/IH

HCS

Of folio 3 is not the letter then I am

says she checks enveloped before throwing

them away.

D. P. 1. 64

8

SPors apologiel. It was she Madre to his file.

Colonial Secretary's Office, Stanley, Falkland Islands.

13th January, 1964.

Dear Sir.

I refer to your letter H5310/61 of the 29th November, 1963 which 11 was addressed to the Officer in Charge Public Works Department, Falkland Islands.

Superintendent, Public Works reports as follows:

- (a) There is no piping of the required diameter available here in Stanley:
- (b) The vertical distance from surface of the jetty to the highest high water, recorded at 6 a.m. on the 31st of December, 1963 was 3.99 ft. and the vertical distance at low water of the same tide 10.23 ft., measurements to sea bed 16 ft.
- The most suitable place for the installation of the gauge will be at the Aviation Department Office which is sited on the end of the Government jetty. This office is electrically heated.
 - I trust this is the information you require.

Yours faithfully,

W H. THOMPSON

COLONIAL SECRETARY.

Hydrographer. Hydrographic Department, (Admiralty) Oxgate Lane, Cricklewood, LONDON N.W.2.

WHT/TB,

Be 2 64 [mail - 6]

No mail

H.128.	c	Hydrograp Admira O:	cklewood,	
	your communic			196.4
is hereby ackno	owledged. The	/	ceiving attention	Carner

ON HER MAJESTY'S SER The Colonial Secretary Falkland Islands M711880/886

COPY of letter from Sir Vivian Fuchs.

BRITISH ANTARCTIC SURVEY

30 GILLINGHAM STREET, LONDON S.W. 1.

AS/163/1

12th March, 1964.

(Dear Governor,)

As you know there is a move afoot to promote an International Antarctic Tide Guage Programme.

I understand that the Hydrographer has arranged for a guage to be set up in Stanley and temporary work will be done this season at the South Sandwich Islands by Wynne Edwards.

Could you please let me know if it would be acceptable for a guage to be established at South Georgia. If the British Antarctic Survey Biological station materializes we could do the work, otherwise I suppose it might fall to the meteorologists to maintain the instrument, change charts etc. I would be grateful for a cable saying whether it is acceptable or not.

(Yours sincerely, Bunny)

V. E. FUCHS

H. E. The Governor, Government House, Port Stanley, Falkland Islands.

Replat 16

DECODE.

TELEGRAM.

From H.E. the Governor.

To British Antarctic Survey, London.

Despatched: 13th April 1964 Time: 1400

Received: 19 Time:

For Fuchs yours March 12 tide gauge Georgia acceptable.

P/L EPA/ER

16464

18

WHItehall 9000, ext. 43

0.6.

Reference: H.5310/61



MINISTRY OF DEFENCE,

HYDROGRAPHIC DEPARTMENT,

OLD ADMIRALTY BUILDING,

LONDON S.W.I



30' July 1964

Your Excellency,

I have the honour to inform you that arrangements have now been made to ship the automatic tide gauge, which is to be installed at Stanley, consigned to yourself. The shipping arrangements are as follows:-

- per S.S. ARGENTINA STAR to Montevideo, leaving London 28th July 1964 and arriving Montevideo 20th August.
- per S.S. DARWIN leaving Montevideo 24th August, arriving Stanley 28th August 1964.
- 2. I am sending you herewith instructions for the erection, maintenance and operation of the gauge together with a supply of check forms. A further copy of the instructions and more check forms will be sent by sea mail.
- 3. It would be advantageous if a single official could be given charge of the gauge and that this official should be chosen bearing in mind that ittakes some time to become familiar with a gauge and that the official in charge should be changed as infrequently as possible; it had also been found that it is only when the official concerned takes a real personal interest in a gauge that the records can be expected to be entirely satisfactory.
- 4. It is hoped that the gauge will be installed and in working order well before the end of the year. One of the main objects of the gauge is to record the annual value of mean sea level. It is, of course, too late to obtain data for 1964 but if the installation were to be delayed beyond the end of the year it, would mean that the records for 1965 would be imcomplete, this virtually losing another complete year.
- 5. Before the end of this year, an officer from this Department should be visiting Stanley in H.M.S. PROTECTOR, and he should be in a position to discuss with the official concerned any difficulties which may have arisen in connection with the tide gauge.
- 6. On completion of the first full year's observations, it is intended to analyse the observations and subsequently include daily predictions for Stanley in the Admiralty Tide Tables, Vol.II. In passing, I might mention that daily predictions for Stanley are already included in the Argentinian Tide Tables.
- 7. May I say finally how grateful I am for your co-operation on this project which will be of considerable importance from both the practical and the scientific point of view.

I am, your Excellency, Your obedient servant,

HYDROGRAPHER OF THE NAVY

His Excellency the Governor,
Port Stanley, FALKLAND ISLANDS.

(19) Minute SPW. Lee 18 Felwans previous conespondence. In action as wereney. H. C.S. Greetion instructions withstrawn.

Shelow \$2.2. 5/9/64. Afwiker Set of instructions has now arrived on the Key are additional to be frevious ones ple withdraws 8 9 60 present. Shower they from he complishes then it was be builton if Key vore left on this file.

1 249.64

H.C.S.

Check sheets withdrawn, spare erecting and operating instructions left in B/c. how 23.

Supt. of Works,

26th September, 1964.

Original filed in 0625/XIV.

Extract from letter from Ministry of Defence dated 4th August, 1964.

Tonnage

HYDROGRAPHIC STORES

D/Wt

Meas

comprise:-

83 cwts

31 tons

2 cases Automatic Tide Gauge marked HI 74 and 75 1 case PVC Tubing marked HI 76 - all for H.E. the Governor Port Stanley Falkland Islands

It is requested that you will enter on the local Bills of Lading, Montevideo to Port Stanley the deadweight and Shipping tonnages shown on the UK Bills of Lading.

(Sgd.) A.W.P. Bateman

for DIRECTOR OF MOVEMENTS (NAVAL)

A.C. S. Noted Thank son.
Aluton. s.P.w.
18/8/64,

Messrs. Maclean and Stapledon.

Colonial Secretary's Office, Stanley, Falkland Islands.

3rd September, 1961.

Sir

I have the honour to acknowledge your letter H.5310/61 of the 30th July, 1964, and the information therein.

One official of the Aviation Department will be in charge of the gauge and I am quite sure a real interest will be taken in it.

I look forward to meeting the officer of your Department who will be arriving in H.W.S. Protector.

I have the honour to be, Your obedient servant,

(W.H. THOMPSON)
OFFICER ADMINIST FRING THE GOVERNMENT

Kingto

Hydrographer of the Navy, Ministry of Defence, Hydrographic Department, Old Admiralty Building, LONDON, S.W.1.

WHT/IM.





With the Compliments of the

Hydrographer of the Navy

AUTOMATIC TIDE GAUGE - STANLEY (FALKLAND ISLANDS)

Instructions for erecting and operating the gauge

THE TIDE GAUGE HUT

- 1. The hut should be kept, so far as is possible, at a fairly even temperature, so as to exclude damp and uneven distortion of the recorder graphs.
- 2. The hut should be adequately ventilated so as to prevent condensation on the metallic parts of the gauge.
- 3. The gauge should be fitted in such a position that the graph can be viewed from all round, if possible (i.e. there should be adequate space all round the gauge).
- 4. The hut should be provided with a table of sufficient size to enable the recorder graph to be laid out flat, and also to act as a work bench. The table should be provided with two drawers for keeping old and new recorder graphs.

Under the table there should be a cupboard, fitted with lock and key, in

which spares and necessary tools can be kept.

It may be found convenient to fit a notice board on the wall, where the operating instructions can be displayed.

THE WELL OR FLOAT CHAMBER

- 1. The well, which is in the form of a plastic pipe containing a small inlet at the base and another at the side, should be fitted so that the base is well below the lowest low water which can be expected. The bottom of the well must, however, be well clear of the seabed.
- 2. The well must be fitted so that it is truly vertical and so that the float plumbs the centre of the well at all states of the tide.
- 3. Then fitting the well and the gauge, arrangements must be made for the float to be removed from the top of the well for examination.
- 4. The well should be fitted with a portable cover, constructed so as to allow the float wire access to the well. It is important that the float wire should not be allowed to foul the cover.
- 5. The well should be protected from damage by boats or floating ice.

THE VISUAL TIDE SCALE

- 1. It is necessary to fit a visual scale alongside the jetty, so that the reading of the gauge can be checked from time to time.
- 2. The visual scale must be truly vertical.
- 5. The visual scale should be fixed so that its zero corresponds exactly with Admiralty Chart Datum. Chart datum is 22.20 feet below a benchmark on the N.W. corner of P.W.D. Carpenters' Shop.

THE VISUAL TIDE SCALE (Contd.)

- 4. The scale should be graduated in feet and fifths of a foot, as shown in the attached sketch. (Appendix I)
- 5. The scale should be fitted to permanent bolts in the framework of the jetty so that it can be removed for cleaning and replaced in exactly the same position after cleaning. (It is most important that the zero of the scale should always be at exactly the same level).
- 6. The scale should be positioned so that it can be conveniently read from a position close to the gauge itself.
- 7. The scale should be situated in a position where it cannot be damaged by shipping or boats; alternatively arrangements must be made to protect the scale by suitable fendering.
- 8. The scale should cover the full range of the tide. The top of the scale should be flat and should mark an exact foot, so that it can be used for levelling.
- 9. Accurate graduation of the scale is required; this should therefore be done with a steel tape.

INSTRUCTIONS FOR FITTING THE GAUGE

- 1. Place a small wooden wedge under the <u>Float Wire Wheel</u> to hold it stationary while the wires are being fitted.
- 2. Release the lower chain sprooket wheel from its shaft by loosening its Allen screw.
- 3. Secure one end of the shorter length of wire (about 10 feet long) to the smaller of the grooved drums by inserting the end through the hole provided and knotting firmly.
- 4. Wind the weight wire carefully into the grooves on the weight wire drum until the drum is full.
- 5. Pass the free end of the wire down through the felt-lined aperture in the bottom of the upper gauge casing, round the wheel in the top of the counterbalance weight and, holding the weight firmly against the underside of the upper gauge casing, secure the end of the wire in the clamp provided.
- 6. Release the weight gently; it will now be supported by the wire and prevented from unrealing by the wedge under the float wire wheel.
- 7. From the 20 ft. length of wire measure the length required. This will be the total range of the tide (i.e. from 49 to -3 ft. = 12 ft.) plus the distance from the highest high water to the level of the float wire drum. Add an extra foot or so for good measure. Put a wire or spunyarn whipping on at this point and out the wire above the whipping.
- 8. Assemble the float unit by passing the rod of the gunmetal ring through the float; place the cupweight on the lower side of the float and secure with nut provided.

INSTRUCTIONS FOR FITTING THE GAUGE (Contd.)

- 9. Pass one end of the wire (see para.7) through the hole in the top of the gunmetal ring and secure firmly by tight knotting.
- 10. Lower float down well to water level.
- 11. Reeve end of wire up through its felt-lined aperture in bottom of upper gauge casing and secure to the float wire drum by inserting end through hole provided, knotting the end securely.
- 12. Holding the float wire drum firmly, remove the wedge under the float wire wheel and, rotating the float wire drum by hand, allow the counterbalance weight to descend very slowly, at the same time carefully feeding the float wire on to the float wire drum, taking particular care that the wire fits properly into the grooves; continue until the weight of the float is taken by the float wire.
- 13. It is now necessary to set the pen. The visual tide scale should have already been set up with its zero at Admiralty Chart Datum. The pen should be set by rotating the chain holding the pen carriage until the pen reads the same as the visual scale. When this has been done secure the lower chain sprocket wheel to its shaft by tightening up its Allen screw. Note: the setting of the pen should be done under calm conditions when the visual scale can be accurately read.
- 14. Check that the pointer on the brass scale, the setting of the pen and the reading of the visual scale all agree. If not, repeat the procedure in para.13 until exact agreement is achieved.

MAINTENANCE OF THE GAUGE

- 1. There are three aspects of maintenance, namely the visual scale, the well and the gauge itself.
- 2. The visual scale must be kept clean and legible at all times and free of marine growth. It may be found convenient to have a spare scale but in this case great care must be taken to ensure that each gives identical readings when fitted.
- 3. The well should be inspected from time to time, not less than once a year, to ensure that there are no marine growths which could impede the float on the inside or which could cause restriction in the inlets. The inlets should be inspected, if necessary by divers.
- 4. It may be found in winter that the water in the well tends to freeze. This may possibly be prevented by covering the surface of the water with a thin layer of oil; alternatively an electric bulb on a wandering lead may help to keep the temperature above freezing point.
- 5. The gauge itself normally requires nothing more than keeping clean and the occasional application to the moving parts of a little light oil.
- 6. The pen will require regular cleaning. This should be done with methylated spirits, never with water.

/TESTS AFTER ...

TESTS AFTER INSTALLATION OF THE GAUGE

- 1. Immediately after installation tests must be carried out to ensure that the gauge is functioning correctly. These consist of checks on both the time and height recordings.
- 2. First the clock must be wound and started. The clock is wound by the ratchet handle on top of the clock and the long lever is for starting purposes when winding.
- 3. The clock rotates once in 24 hours but will run for 7 days without re-winding.
- 4. Speed regulation is provided on the chart clock, and access to the adjusting level can be obtained by moving the pivotted quadrant plate on the front face of the clock. To speed up the clock the lever should be moved towards the letter 'F' and to slow down the clock it should be moved towards the letter 'S'.
- 5. The recorder graph should be fitted on to the drum, the pen should be charged with ink, the ink being made to flow through the nib by working the piece of fine wire which is threaded through it.
- 6. The gauge should be run through one complete tidal cycle (so as to include one high and one low water), and at the same time readings should be taken every 15 minutes. The equivalent readings should be taken off the graph and, if the gauge is working properly, these should agree.
- 7. The gauge should now be run for the complete 24 hour period and the clock error, if any, noted. This should be repeated every day for a week. If the total accumulated clock error is more than 10 minutes, the clock should be adjusted and the procedure repeated until the timing is satisfactory.
- 8. The result of these tests, together with the recorder graphs, should be forwarded on completion to the Hydrographic Department. (address or elect)

OPERATING INSTRUCTIONS

1. The recorder graph (or chart) should be put on so that the base of the chart is hard up against the bottom rim of the drum.

The drum is inserted and removed by means of the quick release pivot at the top of the drum.

- 2. One chart can be used for about seven days as a rule, but if it becomes difficult to distinguish the individual days it may be necessary to change it more often.
- 3. The chart should be removed by cutting the paper vertically with a sharp knife or razor blade, taking care to retain the paper join intact, as this may be required for making small corrections to the readings.

/4. After

OPERATING INSTRUCTIONS (Contd.)

- 4. After putting on the drum, the pen should be eased on to the paper and the drum rotated by hand until it shows the correct time against the pen. Owing to possible backlash this setting should be checked after 5 minutes or so to ensure that it is still correct.
- 5. A check should now be made against the visual scale and the result entered on the check sheet, which should be filled in daily at about the same time every day.

It is important that the visual scale should be read <u>first</u> and written down before reading the gauge. It is not satisfactory merely to read the gauge and then check that the visual scale agrees.

- 6. If there is any scend at the scale, an attempt should be made to read the average of the top and bottom of the scend; if the water movement is too great to permit a reliable estimate of the height on the scale to be made, the check sheet should be annotated accordingly. These checks are only of value if made under reasonably favourable conditions. The estimated height of the scend should be given in the remarks column. The times of the onsets of sudden gales or squalls should also be entered, as well as the strength of the wind from time to time.
- 7. The date should be entered against each daily graph at a convenient place so that each day can be immediately distinguished.
- 8. The completed graphs, together with their check sheets, should be forwarded on completion of each month's records to:-

The Superintendent,
Tidal Branch,
Ministry of Defence,
Hydregraphic Department,
Oxgate Lane,
Cricklewood,
London, N.W.2,
England.

- 9. A supply of charts will be sent without demand and replacements will be sent at regular intervals. If, however, stocks become low, sufficient notice should be given in view of the long time which must inevitably occur between a demand being sent and an answer being received.
- 10. Requests for spare parts should be sent to the address given in para. 8 above.

Ministry of Defence,
Hydrographic Department,
Oxeate Lane,
Cricklewood, N.W.2.

29th July 1964

By 3010 64 (x) 02- 15)

H.128. Hydrographic Department, Admiralty,	
Oxgate Lane, Cricklewood, London, N.W.2.	
Receipt of your communication No. 23 26	
dated 3rd September 1964 forwarding	
Gange information	
is hereby acknowledged. The matter is receiving attention.	

for HYDROGRAPHER MANY

bolomal typicales of the Starley.

Lalkland Islands

Jalkland Islands

7/886

GOVERNMENT TELEGRAPH SERVICE



FALKLAND ISLANDS

SENT

Number	Office of Origin	Words	Handed in at	Date
	Psy			31.10.64.
o				
COMM	ANDING OFFICER H.M.S. F	ROT CTOR		Hou/c

For Officer from Mydrographic Department stop Admiralty tide gauge installation stop Diver required to fix underwater bracing stop Will you please ask Captain for necessary assistance during first period in Stanley

Reply at 1063

Colonial Secretary

WHT/FA

Bu7116

Mo. 5.

TELEGRAM.

From Commanding Officer, H.M. Protector.

To Colonial Secretary, Stanley.

Despatched:

2nd November,

19 64. Time: 1231

Received:

2nd Movember, 19 64, Time:

Your 311140%/OCT diving assistance on tide gauge will be provided.

2. Hydrographic officer will visit 5th November and hopes to check datum and obtain two days readings.

Commanding Officer Protector

P/L : LH



H.M.S. PROTECTOR, at sea.

15th Movember, 1964.

No. 266/9.

Hydrographer of the Navy, (for Superintendent of the Tidal Branch), Old Admiralty Building, Whitehall, London, S.W.1.

REPORT ON THE PORT STANLEY TIDE GAUGE.

- 1. The Lea vertical Level Recorder installed at PORT STATIMY was inspected on 5th and 6th November, 1964.
- 2. <u>Installation</u> and Siting. The recorder is situated in the Aviation Office at the end of Government Pier. The compartment is large, warm, dry and ventillated. There is ample table and cupboard space. The well is installed between four braced piles driven into the sca bed. Divers from H.M.S. PROFECTOR provided additional below water bracing. The well is well clear of the sea bed. There is no Kelp in the immediate vicinity and the area is stated not to be subject to silting.
- 3. During fitting, the plastic tube was fractured and this was repaired by fitting a brass collar. The collar is just below jetty level and never covers. The well is vertical and the float does not touch the inner walls. The float and counter weight wires are clear.
- 4. A visual scale has been fitted, marked like an Admiralty tide pole. The markings are cut into the wood and were found to be correct when checked against a steel rule. The scale is vertical and bolted in place with through fastenings. There is a ladder provided for the convenience of reading the visual scale. The gange is adjusted to agree with this scale.
- 5. The site chosen would appear to be excellent in every wey. It is most unlikely that the well could be damaged by vessels using the jetty. A severe storm from the west is the only possible danger and the piles and bracing inspire confidence that this too, could be withstood.
- 6. The installation is a most workmanlike job and it is considered that the Public Works Department deserve to be particularly commended for the care that they have taken in installing the underwater fittings and the well.
- 7. Levelling. A painted benchmark exhists on the north east corner of the P.W.D. Carpenter's shop. There is no trace of a mark on the north west corner of the building.
- 8. An additional benchmark was cut into the concrete blocks forming the wall of the P.W.D. Office building, near the north east corner.

.../ 9. Levelling...

Copy to: The Colonial Secretary,
Falkland Island Dependencies,
Port Stanley.

Enclosures: 1 sheet of photographs.
1 set of negatives.

1 Gauge chart.

9. Levelling Data:

(i) The zero of the visual tidal scale is 22.77 feet below the carpenter's shop benchmark.

ii) The zero of the visual tide scale is 20.53 feet below

the P.W.D. Office building benchmark.

- (iii) Cross levelling between benchmarks confirmed that the P. W. D. Office building benchmark is 2.24 feet below the carpenter's shop benchmark.
- 10. Datum. Assuming the carpenter's shop benchmark to be the one to which chart datum is related it would appear that chart datum is 0.57 feet on the visual tide scale.
- 11. The question as to whether to adjust the tide scale (and tide gauge) to chart datum was discussed. However as there was not much local confidence in the carpenter's shop benchmark, it was thought that the best course would be to leave the gauge as it is until such time as datum is re-established from the readings. A short period comparison with predictions was inconclusive as the range was much greater than predicted.
- 12. Check on the workings of the gause. The visual tide scale was read for 24 hours and the results are forwarded as an enclosure to this letter. The gauge chart is also enclosed.
- Arrangements for reading the gauge. It was agreed with the Colonial Secretary that the gauge would be checked daily, except Sundays and Public Holidays, by the pilots and their staff. The Senior Pilot, Mr. KERR, accepted responsibility and was shown how to operate the gauge. Operating instructions were fixed to the gauge door. The arrangements would seem to be most satisfactory as the pilots are used to reading instruments carefully, one or other of them is present in the office every working forenoon and they have an interest in the final result, for the slipping of their aircraft. Completed gauge sheets and check sheets will be given into the Colonial Secretary's Office weekly, for transmission, whenever mail closes, to the Superintendent of the Tidal Branch, Ministry of Defence, (Hydrographic Department), Oxgate Lane, Crickletood, London, N.W.2. The readings will be started on Monday, 9th November, 1964.

(M.S. OLLIVANT.) CAPTAIN.

M.S. Olhuit

Aviation Department,

Stanley,

Falkland Islands.

17th. November,1964.

sir,

The enclosed chart and check sheat is now ready for dispatch to the following address:-

The Superintendent Tidal Branch,
Ministry of Defence (Hydrographic Dept.),
Oxgate Lane,
Cricklewood,
LONDON, N.W. 2.
ENGLAND.

I would be grateful if you would be good enough to arrange dispatch.

pirector of Civil Aviation.

Colonial Secretary, port Stanley.

1

forwarded under comp. Ship.

SPw.

Please read 28 and Compatibali formself + those who assisted. See para 6.

S1 21. 11. 64

C.S. Woled Mank you. ** Afulin. SPN. 23/11/64.

6.

last-mentioned owner shall be liable to repair the fence, and if he refuses or neglects to do so the adjoining owner may at once proceed to repair the same and shall be entitled upon completion of the work immediately to recover the cost thereof from him.

(7) For the purposes of this section the term "owner" includes a lessee under a lease for a term of not less than one year.".

OBJECTS AND REASONS

To introduce a law regarding fences and fencing in suburban and country land in the Colony, and for purposes connected therewith. The present law on these subjects is unwritten and based on the custom of the country and it is now considered edviseble to provide for these matters by country and it is now considered advisable to provide for these matters by enactment.

Ref. 0720.

Aviation Department,

Stanley,

Falkland Islands.

23RD DEC. 1964

6.8.

The attached charts are now ready for dispatch to Min. of DEFENCE.

There it.

4

Sent under a Comp. Slip JA. 24/12/64

1

32

Aviation Department,

Stanley,

Falkland Islands.

25th JAN 1965.

Attached charts now ready for dispatch fler .

Sent unde bomp Slig.

send

whitehall 9000, ext. 43

Reference: H.5310/61



MINISTRY OF DEFENCE,

HYDROGRAPHIC DEPARTMENT,

OLD ADMIRALTY BUILDING,

LONDON S.W.I

9: February 1965

Dear Sir Komo,

I was delighted to learn from Commander Gordon,
Superintendent of our Tidal Branch, that the automatic tide
gauge at Stanley has been installed and is now working well.
The speed and efficiency with which the work has been done
reflect great credit on all concerned.

We have also received a very thorough report and description of the gauge installation from Lieutenant-Commander Bradley.

When we have received the first month's records, they will be analysed and it is hoped to include tidal predictions for Stanley in Admiralty Tide Tables Vol. II for the year 1967 and onwards. If you would like to have advance copies of these predictions, I shall be very pleased to arrange this.

I should also be grateful if you would say whether routine correspondence regarding the gauge records will continue to be conducted through the Colonial Secretary or whether you would prefer such correspondence to be dealt with by the official in charge of the gauge.

I would like to express my personal thanks to you and to Sir Edwin Arrowsmith for the interest which you have taken in this project which will, I feel sure, prove to be of great practical and scientific value.

Reply at 36.

HYDROGRAPHER OF THE NAVY

your ariang

H.E. Sir Cosmo Haskard, K.C.M.G., Government House, Port Stanley, FALKLAND ISLANDS.

34

Os. I have riply by Probates mail - we need to maintain a food relationship with his bythographer. It all well with hids Enege? My way for my letter to bythopipes? Ob 93 Y.E.,

The gauge is working well.

Correspondence through me.

I have nothing else.

5.

WHT/IM.

S April, 1965.

1/0

Thank you very much for your letter H.5310/61 of 9th February about the automatic tide gauge at Stanley. I am very glad that the gauge has been installed. Commander Bradley is due to reach Stanley about the middle of April and I expect that he will be taking a further look at the tide gauge and will be able to report to you on its performance. I understand that at very high tides there may be some slight difficulty in obtaining precisely the measurements which are desirable, but this is a technical matter on which I am not competent to comment.

We would certainly like to have advance copies of tidal predictions as and when they become available.

As far as routine correspondence is concerned, I would suggest that all letters on the subject of the tide gauge should be addressed to the Colonial Secretary.

I should like to take this opportunity of letting you know that I was very glad to be present in H.M.S. Protector in January of this year when preliminary work for the Hifix programme in the South Orkneys was being undertaken. The Hifix is certainly a most interesting development and I look forward to seeing Commander Bradley on his return to Stanley and hearing from him in detail and account of the season's work. As you will appreciate, claims on the services of R.R.S. "John Biscoe" have sometimes required the making of difficult decisions but I hope that when you have seen Commander Bradley you willfeel that every effort has been made to ensure the success of the Hifix programme.

Ch

Rear Admiral E.G. Irving, C.B., O.B.E.

PAA.

H.128. 232 Hydrographic Department,
Oxgate Lane, Cricklewood,

1965 W. 196 S.

Receipt of your communication No.....

dated ...

forwarding

Tide Gauge Records from 19-4-65 to 10-5-65.

is hereby acknowledged. The matter is receiving attention.



FALKLAND ISLANDS.

H.129.

Hydrographic Department,

Oxgate Lane, Cricklewood, London, N.W.2.

24th Mey 1965

It is requested that the officer who originated the report may
be informed that your Hydrographic Note dated 24th May 1465
Ref. No. forwarding Summary of thechs
was Automatica Jude Gauge Trajectory etters
is receiving attention.

for HYDROGRAPHER The



Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	29.6. June	1965
Receipt of your commi	unication No.	
fated		forwarding
Tido trange Record	ect for 10-5-65 to 24	-5-65.

is hereby acknowledged. The matter is receiving attention.



The Colonial Scretary,

STANLEY

FALKLAND

ISLANDS

11/64 M741994/886

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

6th august 1965.

dated 30th June - 1 th July 1965. forwarding

Tide Gauge Information

is hereby acknowledged. The matter is receiving attention.

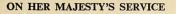


11/64 M741994/886

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	241	L September	196.5
Receipt of your commun	nication No		
dated			forwarding
Tile Gange Reco	and ute for	5-7-65 6	9-8-65.

is hereby acknowledged. The matter is receiving attention.







STANLEY

FALKLAND ISLANDS.

11/64 M741994/886

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

	0 4	
II bl.	October.	196.5

Receipt of your communication No.....

Tide Group Records at for 9-8-65 to 30-8-65

is hereby acknowledged. The matter is receiving attention.

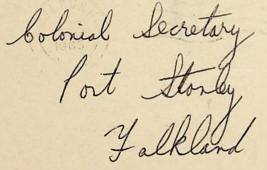


The Colonial Secretary,

STANLEY

FALKLAND ISLANDS.

H.128.	Hydrographic Department,
SECRETARY'S ON	Oxgate Lane, Cricklewood,
Contract 181	London, N.W.2.
(S) 16FEB 1966	20/12 1965
PENLICIAND ISLANDS	_
Receipt of your communication	ation No.
dated) 25	forwarding,
Summary of	check on automatic
is hereby acknowledged. The	matter is receiving attention augy
as accept account winding 1 me	
	. S) Telmold
	for HYDROGRAPHER
	of the Navy.





Island

H.128.	Hydrographic Depa	irtment, 40
	Oxgate Lane,	Cricklewood,
911811	London, 1	N.W.2.
(H3M 7) A3Pl Receipt potryour co	7th Mark	196.6
dated	2 10 1 1	forwarding
Ullemale Jide C	Jourge - 17/1/66-	24/1/66.

is hereby acknowledged. The matter is receiving attention.

emoth.

ON HER MAJESTY'S SERVICE 1. Colonical 3 Filtratury OFFICIAL PAID

Fulkland Isles.

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

	not march	1966
Receipt of your comm	nunication No.	
ated .		forwarding
Utematic tide C	jauge - 29-12-65	-3-1-66
	The matter is receiving at	

The Colonial 3-PH contary

OFFICIAL PAID

Falkland Isles,



is hereby acknowledged. The matter is receiving attention.

Pmoth.

The Colonies scoretary



Port Stanley

talkland Islands.

H.128. Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2. Receipt of your communication No. dated 7 9 14 Tebruary, 1966 forwarding Summary of checks on automatic tick gauge

is hereby acknowledged. The matter is receiving attention.

The Harbour Marter Falkland do. Dependencies

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

Receipt of your communication No.

dated 21st 28th Lebruary forwarding Summary Chesha on automatic Tide Cauges - Pat Stanter

is hereby acknowledged. The matter is receiving attention.

The Harbotis - Mayter
1966
Port Standing.

- DR. BARNARD COMPANY TO THE PROPERTY OF CHILD CARE

H.129.

Hydrographic Department,

Oxgate Lane, Cricklewood, London, N.W.2.

17th May 1966

It is requested that the officer who originated the report may
be informed that your Hydrographic Note dated 21St March 1966.

Ref. No. forwarding automatic Jule

Gauge Checko - 21-28-3-66.

is receiving attention.

for HYDROGRAPHER of

Navy

The Harbour Master, Part Stunley. Falkland Islands.



Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

Receipt of your communication No.

dated Mth. Murch forwarding

Summary of Checks on Automatea Side Gauge Sufrante

is hereby acknowledged. The matter is receiving attention.

E that for HYDROGRAPHER of the Navy.

The Hartour Muster.

Port Stanley,

Falkland Island.



Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

eftene, 196. C.
Receipt of your communication No.
dated 18 4 25 2 Offmil, 1966 forwarding
Summaries of Checks on automatic Tile Gange
is hereby acknowledged. The matter is receiving attention

The Harbour Master



Port Stanley Falkland Is. Dependencies.

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

Receipt of your communication No.

Two Summary of checks on aut. Tite Gange forms.

is hereby acknowledged. The matter is receiving attention.

of the Navy.



Jelephone: GLADSTONE 3366

Reply should be addressed to
THE HYDROGRAPHER OF THE
NAVY

quoting H.5310/61



HYDROGRAPHIC DEPARTMENT
OXGATE LANE

CRICKLEWOOD

LONDON, N.W.2

September 1966

Dear Sir,

AUTOMATIC TIDE GAUGE

We have now had nearly two years' records from the tide gauge at Stanley and I would like to express our appreciation of the conscientious way in which the records have been kept. Some difficulties have, however, been experienced here in interpreting the records owing to the very complicated oscillations set up by meteorological conditions in Port Stanley and to the fact that there are records for one week on each chart; this is particularly noticeable at neap periods when the range of the tide is small. It would therefore be appreciated if, on such occasions, the chart could be changed more frequently - perhaps twice a week. I think that this can be left to the judgement of the operator but the important point is that it should be possible for us to be sure which day is which where the traces overlap. In this context the occasional notations of the date which the operator has been making against the trace are very helpful.

- 2. The check form has now been modified and I enclose a small number of the new forms herewith. A further supply is being sent by sea.
- 3. With regard to the charts it would be appreciated if you could inform me how many you have in stock, so that replenishments can be ordered in good time

Yours faithfully,

(D. L. Gordon)

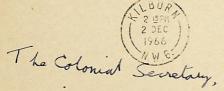
for HYDROGRAPHER OF THE NAVY.

The Colonial Secretary STANLEY FALKLAND ISLANDS Report of 58.

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	2-1 December	196.4
Receipt of your commu	inication No.	
dated		forwarding
Tipe Gauge Rec	and ste f 36-9-66 1 1	7-19-65
is hereby acknowledged.	The matter is receiving attention.	

10011





STANLEY

FALKLAND

ISLANDS

	Hydrographic Department,	90
H.128. C TARY'S	Oxgate Lane, Cricklew	ood,
De la constantina della consta	London, N.W.2.	_
2 CDEC 1966)	8 12	196 🖢
CALKLAND ISLANDS	igation No. 2177	
Receipt of your comm	alah u \ ela	Commedian
dated		forwarding
		Α
is hereby acknowledged.	The matter is receiving attention.	

MYDROGRAPHER of the Navy.

ON HER MAJESTY'S SERVICE Lalkland Islands

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	22-1. Decemb	196.6
Receipt of your comm	nunication No.	
dated		forwarding
Tide Gauge Rea	ords etc for 17-10-66 to	14-11-66
	The matter is receiving attent	





re Coloma Secretary,

STANLEY

FALKLAND

ISLANDS

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

6th February

1967

Receipt of your communication No....

dated 4th becomber 1966.

forwarding

Summany of checks on automatic Teal & Gauge.

is hereby acknowledged. The matter is receiving attention.

The Harbour master,

Port Stanley.

Falkland Isles.



Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	28 th February 1967.
Receipt of your comm	nunication No.
dated	forwarding
Tide Gauge Re	rando eta far 3-1-67 to 33-1-67
	The matter is receiving attention.





The Colonial Secretary,

STANLEY

FALKLAND

ISLAMDS.

DCA 52. Please advise. JA 7.3.67

Con. Sec. - Please note date of receipt back. 52.

New type check sheets will be used from Monday 13th March.

1964. more frequent chart changes will be made.

Stock of LEA Recorder charts held affrox. 220.

Per 1/61



Ref: 2326.

Colonial Secretary's Office, Stanley, Falkland Islands.

13th March, 1967.

Dear Sir,

Automatic Tide Gauge

I refer to your letter reference H.5310/61 dated September 1966 and regret that an earlier reply has not been addressed to you.

The Director of Civil Aviation advises that he has approximately 220 LEA recorder charts in stock.

As from today a new type of check sheet will be employed and more frequent chart changes will be made.

Yours faithfully,

JOCOLONIAL SECRETARY

Hydrographer of the Navy, Hydrographic Department, Oxgate Lane, Cricklewood, LONDON, N. W. 2.

IM.

Pa

H.128.	Hydrographic Department, Oxgate Lane, Cricklewood,			
1 9 MAY	1967)	London,		•
3 1 9 MAI	105	/ 23	3	196.7
FALKLAND	ISLAND	2/2	nl.	
Receipt of your con	nmunication	n No		
dated	13	369		forwarding

is hereby acknowledged. The matter is receiving attention.



Secretary's Ofice Jalkland Islands

11/64 M741994/886

H.128. 28 JUL 1967	ydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.
MALAND ISLA DE *	34 d May 1967
Receipt of your communication	
dated	forwardin

is hereby acknowledged. The matter is receiving attention.





The Colonial Secretary,

STANLEY.

FALKLAND ISLANDS

Pa

11/64 M741994/886

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

Receipt of your communication No.

dated

..... forwarding

tide gauge seconds 17th April - 9th May 1967

is hereby acknowledged. The matter is receiving attention.

for HYDROGRAPHER

of the Navy.





The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS



H.128.	\$ 2-A	JG 1967 Ox	aphic Department, gate Lane, Cricklewoo London, N.W.2.	od,
•	KLAND	ISLA DS *	11 of July	196.7
Recei	pt of your com		•••••••••••••••••••••••••••••	.,,
dated	e gauge reco	-ds, 9-5 t	29-5-67	forwardin
is hereby	acknowledged.	The matter is	receiving attention.	
			for HYDROGR. of the N	



The Colonial Secretary, STANLEY

11/64 M741994/886

FALKLAND ISLANDS

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

	8 th August	1967
Receipt of your comm	nunication No.	
dated		forwarding
Tida Gauge Re	and et for 29-5-67	t= 26-6-67
s hereby acknowledged	The nutter is receiving after	ention_





The Colonid Secretary,

PORT STANLEY

FALKLAND

ISLANDS

H.128.

27 DEC 1967

A Secretary Hydrographic Department,

27 DEC 1967

London, N.W.2.

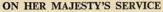
Receipt of your communication No. dated forwarding

tide gauge records, 10/7 to 4/9/67

is hereby acknowledged. The matter is receiving attention?

for HYDROGRAPHER
of the Navy.

20 de October







The Colonial Secretary,

STANLEY,

11/64 M741994/886

Falkland Islands

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

•	***************************************	6 th Nov	ember 1967
Receipt of your comr	nunication No.		
dated			forwarding
tide gauge	records 4/0	To 25/9/67)
is hereby acknowledged.	The matter is	receiving atte	ntion





The Colonial Secretary

Port Stanley,

Fallsland Islands.

PA

dated



Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

15 et December 1967

Receipt Aorly on communication No.

forwarding

tide gauge records, 25/9/67 to 30/10/67

is hereby acknowledged. The matter is receiving attention



11/64 M741994/886

The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS

27FEB1968

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

21 st December

196.7.

Receipt of your communication No.

dated

.....forwarding

tide garage records, 30-10-67 to 13-11-67

is hereby acknowledged. The matter is receiving attention

for HYDROGRAPHIE





THE COLONIAL SECRETARY
PORT STANKEY
FALKLAND ISLANDS

11/64 M741994/886

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

forwarding

Receipt of your communication No.

dated

tide gauge records is much to 1-1-63

is hereby acknowledged. The matter is receiving attention.





The Colonial Secretary
Port Stanley,
Fallsland Aslands

11/64 M741994/886

H.128. 21 APR 1968

Hydrographic Department,
Oxgate Lane, Cricklewood,
London, N.W.2.

5 th Marth

96 8

Receipt of your communication No.

dated

forwarding

tide gauge records 1-1-68 to 15-1-68 and 15-1-68

is hereby acknowledged. The matter is receiving attention.





The Colonial Secretary,

FALKLAND ISLANDS



11/64 M741994/886



Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

8 d Mard

196

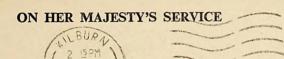
Receipt of your communication No.

dated

forwarding

The gauge reends, 29-1-68 to 12-2-68

is hereby acknowledged. The matter is receiving attention,





The Colonial Secretary,

STANLEY

Fallsland Islands.

11/64 M741994/886

H. 128 SECRETARY

2 MAY 1968

FALKLAND ISLA

Hydrographic Department, Oxgate Lane, Cricklewood, London, N.W.2.

4 de April

96.8

Receipt of your communication No.

dated

forwarding

tide gauge records, 12-2 to 4-3-68

is hereby acknowledged. The matter is receiving attention.

of the Navy.



The Colonial Secretary STANLEY,

FALKLAND ISLANDS.



CHANGE OF ADDRESS 23 MAY 1968

From 6th April, 1968 all communications for the Hydrographer should be addressed to:-

Hydrographic Department, Ministry of Defence, TAUNTON, Somerset

Telephone: Taunton (STD Code 0823)

Telex: 4674 'Answer back' code NAVHYDROG TAUNTON

The telephone extension number of

THOMA BRANCA





The Colonial Secretary, STANLEY,



Falkland Islands.

H. 18a.

ADMIRALTY HYDROGRAPHIC SUPPLIES ESTABLISHM

CREECHBARROW HOUSE, TAUNTON, SOMERSET.

Sir,

I am directed to acknowledge the receipt of your communication

Sir.

tide gauge records which is receiving attention. I am,

Your obedient Servant,

7/62 34/6 M720907 IM CWW.LTD. 886



Qe.

FALKLAND ISLANDS

H. 18a.

ADMIRALTY HYDROGRAPHIC SUPPLIES ESTABLISHMEN CREECHBARROW HOUSE. TAUNTON. SOMERSET.

Sir,

I am directed to acknowledge the receipt of your communication

of the No. relative to which is receiving attention. I am,

Your obedient Servant.





TOSEP POB S.

The Colonial Secretary,

STANKEY

Falbland Islands

H. 18a.

ADMIRALTY HYDROGRAPHIC SUPPLIES ESTABLISHMENT CREECHBARROW HOUSE, TAUNTON.

SOMERSET.

Sir,

I am directed to acknowledge the receipt of your communication

Sir,

of the No. relative to tile gauge seconds which is receiving attention.

27/5 - 24/4/8 I am,

Your obedient Servant

7/62 34/6 M720907 IM CWW.LTD. 386





The Colonial Secretary

STANLEY,

Ra

FALKLAND ISLANDS.

H. 18a.

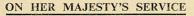
ADMIRALTY HYDROGRAPHIC SUPPLIES ESTABLISHMENT CREECHBARROW HOUSE, TAUNTON, SOMERSET.

ir,			1. August 1900
,	I am directed to ac	cknowledge the receipt of	f your communication
f the		No	relative to
ide ga 4/6/68	auge records, 8 to 8/7/68	which is receiving I am, Sir, Your	attention. obedient Servant,

Pa.

Chief Superintendent

7/62 34/6 M720907 1M CWW.LTD. 886



27 AUG



13 OCT 1968

The Colonial Secretary,

STANLEY,

Falkland Islands.

H. 18a

HYDROGRAPHIC SUPPLIES ESTABLISHMENT, CREECHBARROW HOUSE, TAUNTON, SMERSET.

16 of October 1968

Sir, I am directed to acknowledge the receipt of your communication of the No. relative to title query records, 8/7 - 26/3/68

I am, Sir,

Your obedient Servant,

Pa.

Chief Superintendent



The Colonial Secretary,
STANLEY,
FALKLAND ISLANDS.

H. 18a

HYDROGRAPHIC SUPPLIES ESTABLISHMENT, CREECHBARROW HOUSE,

TAUNTON, SOMERSET.

Sir,
I am directed to acknowledge the receipt of your communication
of the No. relative to
ticle gauge records, 26/8 to 9/9/68

I am,

Sir, Your obedient Servant,

&a.

Chief Superintendent







The Colonial Secretary,

PORT STANLEY,

FALKLAND ISLANDS

H. 18

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSE

28 A November 1968

Sir/Madem,

I am directed to acknowledge the receipt of your communication of the

No. relative to

tide gauge records 16/9 - 30/9/68 which is receiving attention.

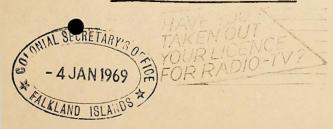
I am,

Sir,

Your obedient Servant,

for Hydrographer of the Navy.

Pa





The Colonial Secretary,
PORT STANLEY,
FALKLAND ISLANDS

H. 18

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET.

		3rd De	cember 1968
Sir/Madam,			
I am directed to acknow	wledge the receipt	of your com	munication of the
	No.		relative to
tide gauge records, 3	0/9 to 21/10	which is rec	eiving attention.

I am,

Sir,

Your obedient Servant,





The Colonial Secretary,
Stanley,
Falkland Islands.

H. 18

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET.

Sir/ Madam ,	16th December 19 68
	receipt of your communication of the
No	relative to
tide gauge records, 21/10 - 1	60
	I am,

Your obedient Servant,







The Colonial Secretary,
Stanley,

Falkland Islands.



H. 18

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET.

	<u></u>	19
Sir/Madam,		
I am dire	ected to acknowledge the receipt of your co	mmunication of the
	No.	relative to
	which is re	eceiving attention.
	I am,	
	Sir,	
	Vour obe	dient Servent





The Colonial Secretary,
STANLEY,
Falbland Islands.

Va.

Н. 18 2396 HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET. 1 3 MAY 1969 Sir/Madato, I am directed to acknowledge the receipt of your communication of the No. _____relative to tale grange records, 11/11/68 - 13/1/69 which is receiving attention.

I am,

Sir,

Your obedient Servant,



The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS

H. 18

Sir/Marian ERS

I am directed to acknowledge th

tide gauge records, 13/1 - 10/2/69

HYDROGRAPHIC DEPARTMENT,

* M.O.D. (NAVY),

TADNTON,

SOMERSET.

24th March

19 69

the receipt of your communication of the

I am,

Sir,

Your obedient Servant,

hich is receiving attention.

The Colonial Secretary, STANLEY,

Falkland Islands.

P.c.

9/68 113/8 M788182 IM CWW.LTD. 886

Н. 18		GRAPHIC DEPAR	RTMENT,
ONIAL SEURETARY'S	M.	O.D. (NAVY),	87
		TAUNTON,	0 1
-3 JUL 1959		SOMER	RSET.
CALKLAND ISLANDS *	******************	15 & May	19.69
Sir/Madam,		0	
I am directed to acknowledge	the receipt	of your communic	ation of the
	NT.		.1.41
tide jauge records 17/3 - 7/4	169	which is receiving	attention.
	I am,		
	Sir,		
		Your obedient Se	ervant,

The Colonial Secretary

STANLEY,

Jide Grage records 2184-29th 1968 113/8 M788182 IM CWW.LTD 886

H 18

MINISTRY OF DEFENCE HYDROGRAPHIC DEPARTMENT OLD ADMIRALTY-BUILDING -LONDON S-W-1

Ref. H.W.

11th June 19.69

Dear Sir . tide gauge records
Receipt of your -communication -No.

dated 7-28th April 1969 is acknowledged. The matter is receiving attention.

Yours faithfully,

for Hydrographer of the Navy.

Wt.36480/H0265 1m 12/64 GAP&S Gp. 624



The Colonial Secretary,
STANLEY,
Falkland Islands.

H. 18

HYDROGRAPHIC DEPARTMENT,
M.O.D. (NAVY),
TAUNTON,
SOMERSET.

		Rud Trele	1969
ir/Madam,			
I am directed to a	cknowledge the receipt	of your commu	nication of the
<u></u>	No		relative to
tide gauge records	28/4 - 26/5/69	which is receivi	ng attention.

I am, Sir,

Your obedient Servant,







The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS.

9/68 113/8 M788182 1M CWW.LTD, 886

H. 18 22 26

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON. SOMERSET.

9

	g Dei	1269
Sir/Mannen,		

I am directed to acknowledge the receipt of your communication of the

No. relative to

tide gauge records, 16/6 - 21/7/69 which is receiving attention.

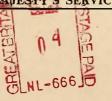
I am,

Sir.

Your obedient Servant,







The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS.

9/68 113/8 M788182 1M CWW.LTD. 886

H. 18

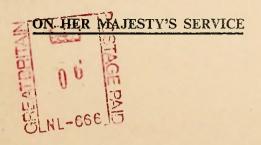
HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET.

	***************************************	3 vol	october	1969	
Sir/Mardon,					
I am directed to acknowledge	the receipt	of your	communication	of the	
	No	_	relat	tive to	
tule gauge record 21-29/7/	69	which i	s receiving atten	tion.	



I am, Sir,

Your obedient Servant,



The Colonial Secretary,
Stanley,
Fallsland Islands

H. 18

HYDROGRAPHIC DA-M.O.D. (NAVY), TAUNTON.

SOMERSET.

6 of October 19.69

Sir/Madan

I am directed to acknowledge the receipt of your communication of the

No.....relative to

tide gauge record, 29/7-4/8/69 which is receiving attention.

I am,

Sir,

Your obedient Servant,

for Hydrographer of +1







The Colonial Secretary,
Stanley,
Fallsland Islands

Н. 18

HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY), TAUNTON, SOMERSET.

	5th November 19 69
Sir/ Madam,	
I am directed to acknowledge	the receipt of your communication of the
	No. relative to
tide gauge records, 4/8 - 2	29/9/69 which is receiving attention

I am, Sir,

Your obedient Servant,





The Colonial Secretary,
Stanley,

Falkland Islands.



H.	10
п.	10

HYDROGRAPHIC M.O.D. (NAVY), TAUNTON, SOMERSET.

17th November 1969

Sir/Madam,

I am directed to acknowledge the receipt of your communication

tide gauge records No. 22/10 - 3/11/69

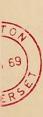
which is receiving attention.

I am,

Sir,

Your obedient Servant,

for Hydrogi





The Colonial Secretary,

STANLEY,

FALKLAND ISLANDS

9/68 113/8 M788!82 IM CWW.LTD, 886

M.O.D. (NAVY) Sir/Newhann I am directed to acknowledge the receipt of your communication of the relative to tide gauge record, 29/9 - 7/10/19 which is receiving attention.

I am,

Sir,

Your obedient Servant,



The Colonial Secretary,

STANLEY,

Falkland Islands.

REPORT ON LEVEL CHECK OF STANLEY TIDE GAUGE - DEC 1969

Summary

- (1) Level checks between four bench marks in Stanley show that there has been no detectable movement of the bench mark on the P.W.D. building.
- The level of the zero of the tide post on the government jetty (2) in within 0.006 netres of that recorded by H.M.S. Protector in 1964.
- There is an apparent discrepancy of 0.012 netres between the zero of the tide post and the zero of the tide gauge chart.

Details of Tide Gauge Check

Interlevelling between four bench marks in Stanley was carried out and checked. The relative levels of these bench marks was found to be consistent with the values which are shown to the nearest 0.1 ft. on the 1:2,500 plan of Stanley (1966).

The relative level between the bench marks on the concrete P.W.D. building and the carpenters' shop was found to agree within 0.002 metres with that recorded by H.M.S. Protector in 1964.*

The relative level between the zero of the tide post on the government jetty and the bench mark on the P.W.D. building agrees within 0.006 netres with that recorded by H.W.S. Protector."

Simultaneous readings of the tide gauge and tide post, taken in dead calm see conditions on 3.12.69 indicated that there was a discrepancy of 0.04 ft. (0.012 metres) between the two scales (at level 3.8 ft.). Conditions have not since been favourable for accurate comparison of the two scales at other tide levels. See next page. #

The tide post was found to be securely attached to the jetty. The scale marked on it was accurate but needed repainting.

Table of Relative Levels

Bench Mark	Height Above Tide		Height Above Tide		Estimated
	Feet	lietres	Feet	Mctres	Motres
P.W.D. building	20.51 (20.53)	6.251	20.55	6.263	I 0.005
Monument	24.235	7.385	24.275	7.400	* 0.015
Allardyce Road	42.27	12.884	42.31	12.896	1 0.015
Cerpenters Shop	22 .74 5 (22 .77)	6.933	22.788	6.945	. 0.005

Figures in brackets indicate those recorded by H.M.S. Protector In 1964.0

The Datum of the Admiralty Chart is recorded as being 0.57 ft. above gauge chart zero.

P.V. Gurling Ph. Gurling.

(B.A.S.) 5.12.69

T.J.C. Christie 7.J.C. Charte .

See letter dated 15.11.64 from Capt. M.S. Ollivant (H.M.S. Protector) on Tide Gauge file at the Secretariet Stanley.

POSTSCRIPT TO TIDE GAUGE REPORT

Between 1950 and 2015 on 5.12.69 calm sea conditions permitted further readings to be taken on the tide post. This period coincided with a slack tide and during it no variation of greater that # was recorded in sea level although continuous observations were made. The maximum reading was 2.42 ft. and the minimum was 2.40 ft.

The trace of the tide gauge chart throughout this period shows a straight line without perceptable variation from the horizontal at a reading of 2.45 ft. This confirms our carlier observation that the zero of the tide post is approximately 0.04 ft. (0.012 netres) above the zero of the tide gauge chart.

T.J.C. Christic

B.A.S. 9.12.69

Ph. Gushing.

P.W. Gurling

ABSOLUTE BENCH MARK LEVELS (Above Datum of 1:2500 Plan of Stanley 1966)

Bench Hark	Probable Accurate	on Stanley Plan
P.W.D	20.10	20.1
Monument	23.82	23.8
Allardyce Rd	41.76	41.8
Carpenters Shop	22 - 33	22.3

H. 18 HYDROGRAPHIC DEPARTMENT, M.O.D. (NAVY),

TAUNTON,
SOMERSET

31 at December 196

Sir/Madam,

I am directed to acknowledge the receipt of your communication of the

tide gauge record

No. 7-13/10/69

...relativo te

which is receiving attention.

I am, Sir,

Your obedient Servant,







The Colonial Secretary, Stanley,



Н. 18

HYDROGRAPHIC DEPARTMENT,
M.O.D. (NAVY),
TAUNTON,
SOMERSET.

19th January 1970

Sir/Madam,

I am directed to acknowledge the receipt of your communication of the tide gauge records

No. 3 - 24/11/69

relative to

which is receiving attention.

I am,

Sir.

Your obedient Servant,





THE SOUND OF THE PARTY OF THE P

The Colonial Secretary,
Stanley,

Falkland Islands.



н. 18 2326

HYDROGRAPHIC DEPARTMENT.
M.O.D. (NAVY),
TAUNTON,
SOMERSET.

18 of February 1970

Sir/Madam,

I am directed to acknowledge the receipt of your communication of the

tide gauge records

No. 24/11 to 9/12/69 relati

......which is receiving attention.

SULLA SECRETARY'S OF ALKLAND ISLANDS

I am, Sir.

Your obedient Servant,

The Colonial Secretary, Stauley, Fallsland Islands.

12 12 16 Car - 3

number and date should be quoted

MEMORANDUM

14th May.

To:

The Colonial Secretary,

From: Superintendent of Works, P.W.D.,

STANLEY.

Stanley, Falkland Islands.

The Director of Civil Aviation. c.c.

SUBJECT :-

Automatic Tide Gauge

An automatic tide gauge has been installed in the Aviation Office (since I believe 1964-65).

If my information is correct the siting of it was suggested by Public Works Department, the installation by Naval and in use by the Hydrographic Department Admiralty. I am told by the Director of Civil Aviation that it has been the practice in the past for visiting Naval parties to maintain this equipment but has been overlooked of late.

However Saturday 9th last, during the gale the submerged half of the tide gauge broke away from its anchorage to the sea bed and broke its welds at floor level, the graph part of the gauge is approximately five feet above Aviation office floor level, the part damaged is sixteen feet long large diameter tube from floor level to sea bed. To avoid its complete loss it has been temporarily secured by Public Works Department personel, but I would imagine it is a Naval responsibility to secure it in its correct position again.

I would like to point out that when it was suggested to be placed in the Aviation office the reasons would be justified, that it did have a little protection, piles and cross braces of the jetty acting as breakers and the main apparatus in a dry heated building. Today is a different story the jetty is much weakened and is constantly on the move, so bad that even if the submerged part of the gauge was made secure again the movement of the office and jetty would eventually fracture the welds, and I recommend it be removed completely and possibly re-sited in a more stable position of another jetty, F.I.C. perhaps.

Superintendent of Works.

A.C.C. As a find the letter get he look at the problem of his were with SPW, of make Josensendations.

CS. There contacked Hedr P. Farranged for him to examine he problem will stow. Show has been informed.

C.S. De fe en I can ase the orly cedim- ho has the hely of it. I should hefelte out nother frees out its filly is not of inou or interest in tologo and in in with 12.5. Ished is promition. Ithis contribution is which the south and beloped.

Of 13/5 and was (! water water !) on the Mes: This felt was made available to alt low Elemny during need year (My Mond delber 22 nd Jamoy, 1970 afen) and I suggest whom he ful in boun before it becomes a mayor propert. It. Non and M. Sa-Hall otherd I: the gonge is readed at folio 52 leaven - may de good work continue. Governont tally her containly deterrorated such on instrumed. The conscioutions monor in which bed . Le. The present wite is the aborrior bacation for P. loo. Horems to me you think to in me this.



NP 140 /10/1

Naval Party 3902 EFPO Ships London

16th July 1970

Hydrographer of the Navy,

AUTOMATIC TIDE GAUGE - STANLEY FALKLAND ISLANDS

- 1. The float chamber of the Stanley tide gauge was carried away by gales in the beginning of May. The wooden framework enclosing it under the Government Jetty has stood up to many gales since its installation. The struts have worked loose, they have also been eaten by worm and have now fractured. The chamber has been recovered but part of the float, though recoverable, is still on the bottom. The Lea Recorder in the Falkland Island Government Air Service Office is intact.
- 2. The gauge cannot at present be refitted to the Government Jetty as the jetty itself is the subject of a surveyor's report. It is proposed that the gauge be inspected by a hydrographic officer from HMS ENDURANCE on her return here in November and ,if necessary , alternative sites investigated.
- 3. The Falkland Island Government feel that reinstallation is a naval responsibility and so have asked me to write this letter.

Anfeebles

(A.M.PEEBLES)
Lieutenant Commander,
Commanding Officer

Copy to: The Acting Colonial Secretary, Falkland Islands The Captain, HMS ENDURANCE.

Reply 103 (12.9. 70.



Please address any reply to THE HYDROGRAPHER OF THE NAVY quoting: H5310/61 Your reference:

Acting Colonial Secretary Stanley Falkland Islands

Copies to:
The Commanding Officer
HMS ENDURANCE

The Commanding Officer Naval Party 8902

HYDROGRAPHIC DEPARTMENT

MINISTRY OF DEFENCE
TAUNTON, Somerset
Telephone: 0823 7900, ext. 486

Telex: 46274

102



7 September 1970

AUTOMATIC TIDE GAUGE - STANLEY

- 1. With reference to letter No NP140/10/1 dated 16 July 1970 from the Commanding Officer, Naval Party 8902, it is noted that the float well of the automatic tide gauge at Stanley was carried away in May 1970 and that the gauge is now out of action.
- 2. This gauge was installed in 1964. The equipment was supplied by the Hydrographer of the Navy and the installation was carried out by the Public Works Department, Falkland Islands. It is therefore proposed that similar conditions should apply to the installation of any new equipment that may be needed to make the gauge operational again.
- 3. It is also noted that the Government Jetty is the subject of a surveyor's report. ENDURANCE is requested to arrange for the situation to be investigated at the first opportunity and a full report rendered to Hydrographer. This report should include any recommendations deemed necessary regarding a change of site if agreement on a new site can be reached so much the better and a complete list of new equipment required to restore the gauge to a fully operational condition.

for Hydrographer of the Navy

Als. Star Charles to 0/2 NF 8902 N

BW armae of Endurance

Sec 113

Bu 28. 11 70.

with C.O. NP8902 and D.C. NP8901, wished It bound boumphale on the traduction of the lidegange at the Gost Jetty. A seport is to be made to the hydrographer of the Many by thems Endurance.

Bu 14. 3.71. (15 KIV)

SPD. X, p. 103. 1. d.c. PbD will be able (phyrically & book- was) to head its pent of the Commitment?

They

6.8.

106

The installation exates no problem once it has been decided where it could be safely installed, and with specifications provided with the new equipment P.W.D could meet this proposal, presuming charges would be met through F.I.C.

Hol 17/3 (0)

SPD. But he have we was a puritiple, that the Plad will had hormally cown out work for the Admirally Agent?

Proposal is True perhaps we should not get involved until a firm Mits then will has been put forward with recommendations (mentioned p. 103/3) only then will we be in a position to realise the extent, and approx. estimates offelights

Agreed.

2. Are any records available as to the exact basis on which P.W.D. did the 1964 installation work, i.e. on reibursement by M.O.D.; or by payment from Colony funds, or whatever?

22.3.71.

AC.

g Love been told by MA? Summers (Theory), who was S. c in Public Works about that time, that there was a great deal of correspondence about it, but I have not been able to locate it, although it may be on file in the Secretariat.

MAP. Summers says, as near as he can remember, the Navy paid for it.

Jul 25/3/1

MAE: Sphe C.S.
To await report from

sugarguphe havy to

software. J.

from Hydrographia Nary)

It is expected that this matter wine be dealt with as a matter of course - possibly of mile of the Endmand.

Bu 19.12.71