

R. S. R. S.

Newsletter

No. 54

October 1965

MY RETIREMENT

by the Director

It has recently been announced that I shall retire on February 28th next year and my place will be taken by Dr. Saxton whom most of us know well.

I should therefore like to take this opportunity to write a few words about Dr. Saxton, about the work of the Station, and about my own retirement.

I can think of no-one better suited than Dr. Saxton to take over my work here. He and I jointly planned the work of the Station from 1960 to 1963 and we had exactly the same ideas about the policy and how we should implement it. During the past two years he has been Scientific Counsellor to the United Kingdom Embassy in the U.S.A. where he has done outstandingly good work. He has had the opportunity to get to know much about American work in our field of study and I am sure he will have some good ideas about how to improve our work when he comes back here.

Dr. Saxton agrees with me that it is most important for the Station that the change-over should go completely smoothly and that there should be no pause in the tempo of our work. Decisions must not be held up, and we must continue to formulate policy actively and vigorously. Although I shall consult him on major items, there will be no pause in planning for the future or in the execution of the work we have in hand.

The future policy of the Station is surely uppermost in our minds at a time of transition. Since Dr. Saxton and I jointly determined the policy in the past it is clear that he would not wish to change it in the immediate future. Indeed in a talk he gave to us all recently he said that he expects to continue the general policy which we are pursuing at present which can be stated as:

pursuing fundamental and applied researches into radio wave propagation, including investigations of the ionosphere and the troposphere through which they travel;
undertaking some investigations with space research techniques to assist in these researches;
and supplying Space Science Services.

The factors which have determined the date of my retirement are, as you might expect, twofold: they concern the Station on the one hand and myself on the other. I would not have considered the possibility of leaving you all at any time until I had been satisfied that the Station was in good shape, and that all was going well. I am glad to say that I think the work is going very well and even with the highest possible standards I think we can be proud of it. The change-over from the D.S.I.R. to the Science Research Council has made a real change for the better, and the support, both moral and financial, and the general framework of Science into which our Station fits, are, I believe considerably better than in the past. It is fortunate for me that the change-over to S.R.C. came early enough for me to feel sure that I would not retire until after the Station had been transferred to this new and very promising organizational environment.

Now a word about myself. I have been Vice-President of the I.E.E. for two years and this year I am Senior Vice-President. It is possible that next October I may be asked to take on even more onerous duties, and if I were they would be so heavy that they would keep me from properly performing my day-to-day work here for at least a year. When I took on the Vice-Presidency I did not expect that these heavy duties would be put upon me for another two years and I had always expected that by the time they came along I might have retired. But it now seems that they may come earlier than I expected and that is one reason why my retirement is to be about a year earlier than it might have been. In addition I am to take a leading part in International Conferences in August and September next year, and I have been asked to visit Australia in April and May to deliver the Rutherford Memorial Lecture of the Royal Society. Now I have always considered that you cannot run a Station properly unless you can spend the majority of your time there talking to people and seeing the work they are doing, and I certainly could not do that after next April. Add to that I am 63 years old and have always had it in mind to retire while I was still active enough to devote my time to writing one or two books which I have been slowly working on for several years past and that is what I plan to do. I shall, of course, miss all my friends here, and the work we are all doing together very much indeed. But the break had to come sometime soon and I am happy to know that I shall leave you all doing work which, under the capable Directorship of Dr. Saxton, will undoubtedly continue to produce many successful results in the future.

J. A. Ratcliffe

Los Viajes - II

"You'll feel at home in the Lima climate!"

So said Dr. Kenneth Bowles when I talked with him before leaving Colorado for South America. As the DC7 from La Paz reached the desert coastline of Peru, and dipped down into the bank of cloud which covers the Lima district, I found what he meant.

Lima is virtually at sea level and is only twelve degrees south of the Equator. Yet for much of the year the sun seldom appears and the climate is best described as a cool, damp desert. The garua, a kind of Scotch mist, falls night and morning but it amounts to an annual total rainfall of about one inch! Hence the desert. Most of Lima's million people live in dry and dusty suburbs but, thanks to irrigation from the Rimac River, grass and trees are plentiful in the choicer areas of the city.

For two months I worked at the Jicamarca Radio Observatory, a joint venture of C.R.P.L. in Boulder - to which belong the senior scientists and engineers - and the Instituto Geofisico del Peru, which supplies the majority of the staff. The heart of the station is the "scatter radar", which operates with 1 MW power at 50 Mc/s; the aerial array is nearly 300 metres square and contains 9216 dipoles. By means of the incoherent scatter principle, the system can measure ionospheric electron densities to a height of several thousand kilometres. It can easily obtain echoes from the moon and artificial satellites and, not so easily, from Venus. Used passively, the array has uses for radio astronomical studies.

Like most of the staff, I lodged in Lima and travelled fifteen miles daily to the site, which is one of the most spectacular I have ever seen. Once out of Lima, the road passes through irrigated estates which contrast with the surrounding desert, and passes the dusty ruins of Cajamarquilla - a city abandoned centuries ago - at the entrance to the Canon del Jicamarca. The site enjoys a few hours of sun on most days; trees and shrubs, watered by a well, grow around the buildings and contrast with the strange plants which grow on the steep arid hillsides all around.

To see the best of Peru, one must cross the Andes. I have done it by road, rail and air. The DC4 which flies daily to Cuzco is unpressurized, and passengers suck oxygen through tubes as the pilot picks his way amongst the 21000' peaks to land at a mere 11000'. Cuzco, the capital in Inca times, is now a busy Spanish-looking city. A remarkable place itself, it is the starting point for the trip to the "lost city" of Machu Picchu. Seventy miles in a small railcar, then five miles up a zigzag road, brings one to the incredible site. Never found by the Spaniards, Machu Picchu is perched on a ridge 2000' above a loop of the Urubamba, an Amazon tributary. At the relatively low altitude of 8000' dense vegetation abounds and completely covered the ruins at the time of their discovery fifty years ago. But, apart from some earthquake damage, the stonework is in a marvellously good condition.

From Cuzco, trains run south to Lake Titicaca, where ancient vessels ply to Bolivia on the "world's highest steamer service" (12700'). On the windswept

altiplano of the Titicaca region, colourful herds of cattle and donkeys, alpacas and llamas blend with landscapes that strangely resemble the wilder parts of the British Isles.

On the "highest and hardest" railway in the world, the Ferrocarril Central del Peru, the trains from Lima to Huancayo climb to 15700' with a series of reversals. At one of the more fearsome points on the line, a rusted locomotive lies in the river far below the track.

An interesting journey can be made on tolerable roads down into Amazon tropical forest; within 200 miles of Lima, one is down at 2500' (though still two thousand miles from the Atlantic). The road down the cañon is decorated at intervals with little white crosses. Crossing the Andes by road can be dicey.

On one occasion I was riding in a truck near Huancayo, location of the famous magnetic and ionospheric observatory. At 40 m.p.h. on a wet tarmac road, the truck skidded out of control. Suddenly those little white crosses seemed very real ... The impact, when it came, was at a grazing angle with an earth bank. Cuts and bruises only, but in the Andes there might just as well have been a drop as a bank at the side of the road.

The garua fell heavily on the night I left Lima by the midnight jet. Flight delayed, as usual, but eventually the DC8 took off two hours late. Ahead lay Panama, similar to Lima in latitude, but with a warm tropical climate instead of the cold, damp desert.

"You'll feel at home in the Lima climate ..."

Henry Rishbeth

STAFF NEWS

Congratulations to:

Dr. and Mrs. P. G. Davies on the birth of their daughter.

The following colleagues on their academic successes:

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|-------------------|---------------------------|
| Miss A. J. Jones | H.N.C. (applied physics) |
| Mr. G. M. Webb | B.Sc. (Special) Physics. |
| Mr. R. J. Powell | B.Sc. Physics. |
| Mr. J. F. Gaynor | H.N.C. Elect. Eng. |
| Mr. M. O. James | H.N.C. " " |
| Mr. R. J. Messias | H.N.C. " " |
| Mr. M. A. Pender | H.N.C. " " |
| Mr. R. A. Weston | H.N.C. " " |
| Mr. J. K. Stay | O.N.C. " " |
| Mr. R. A. Amey | O.N.C. Eng. |
| Mr. J. S. Sondhi | G.C.E. 'O' level physics. |

Mr. J. W. Hopley on his promotion to acting S.E.O.



Welcome to:

- | | |
|--------------------|--------------------------|
| Mrs. J. Willsher | T/C.O. |
| Mrs. R. E. Ditcher | Clerk/Typist (Singapore) |
| Mrs. E. M. Martin | T/C.A. |

Mrs. H. Lennon	T/C.A.
Mrs. E. S. Faulkner	C.O.
Mrs. P. L. Elvins	T/Typist II
Miss M. Leonard	T/C.A.
Miss Veena Dogra	T/S. Typist II
Miss B. Greenfield	T/A.E.O.
Mr. Lui Pao Chuen	Research Officer
Mr. S. J. Thompson	T/S.A.
Mr. H. M. C. Fielding	S.C. Student
Mr. A. Penny	S.C. Student
Mr. L. Chaudhary	T/S.A.
Mr. R. T. Pratt	T/A.E.O.
Mr. S. Roberts	T/S.A.
Mr. R. C. Dorey	Eng. App.
Mr. A. Thackray	" "
Mr. R. Adlam	" "
Mr. A. J. Chipperfield	T/A.E.O.
Mr. M. A. Trower	T/A.E.O.
Mr. M. N. Colbourne	T/A.E.O.
Mr. J. W. Shelley	T/S.A.
Mr. P. T. Manning	T/S.A.

Resignations:

Mrs. A. R. Primmer	T/C.T.
Mrs. Dickinson	T/S.T.
Mrs. S. Legg	T/C.O.
Miss H. Underhill	T/S.A.
Mr. A. J. Legg	T/E.O.
Mr. D. A. Murphy	T/A.E.O.
Mr. A. E. Miller	T/C.O.
Mr. J. H. Hendry	T/S.A.
Mr. P. G. Jones	T/S.A.
Mr. J. Hampson	T/S.A.
Mr. R. Kerr	T/S.A.
Mr. D. J. H. Sturdee	T/S.A.
Mr. R. P. Harrison	S.C. Student
Mr. A. J. Chipperfield	S.C. Student
Mr. J. S. Sondhi	T/S.A.
Mr. W. Morrison	T/S.A.
Mr. D. Capper	T/S.A.
Mr. C. D. Jones	T/S.A.
Mr. M. A. Penny	S.C. Student
Mr. A. M. H. Wright	E.O.

SPORTS AND SOCIAL CLUB NEWS

Bridge Club

Twelve people played on the first club evening on 4th October; the next evening will be on Wednesday 27th October. Our first match is against the Road Research Laboratory at Harmondsworth on 20th October. We are again taking part in the NPL Interdivisional League for teams of four and the first match will probably be held at NPL on Tuesday 2nd November.

Lunch-time bridge is getting underway in Spur D; Mr. Venables has been out of action after a Rugby injury but is now back at work and will be delighted to see as many players or would-be players as can crowd into his office. Unfortunately he is leaving at the end of this month and he will be very much missed in the Bridge Club. For the moment at least the lunch-time bridge cards will continue to live in Room 48.

Jean Fooks

Camera Club

The Club will hold monthly colour-slide showings during the winter. The first will be on Tuesday, 26th October at 1250 in the Projection Room. Mr. Newman will show slides of Israel and Greece. All are welcome that can get in! We shall exhibit prints and slides from the London Airport trip during the week 29th November-3rd December. Anyone who would like to contribute is asked to contact Henry Rishbeth or Paul Dickinson.

Would members please claim all chemicals and other belongings from the Sports Club Dark Room. This includes items in the lockers. The Committee is about to have a purge, and at the end of October all materials will be thrown away unless marked "PLEASE KEEP" and DATED October 1965, or later.

Henry Rishbeth

Bonfire

For the last two weeks, parties of volunteers have been combing the park for fallen trees. The bonfire season is with us again!

As usual the fire is to be on 5th November, starting at 6.30, with fireworks, hot dogs, coffee and sparklers for all the children. We are inviting a small number of children from local homes, as we did last year.

- Wanted:-
- Volunteers (preferably with saws) to collect more wood
 - Engine Oil
 - Old clothes for the Guy
 - More names on the bonfire list.

M. Peart

Smith-Rose Cup

The result of the recent tennis tournament was a resounding victory for the East team, having won all the matches played.

Margaret Powell (Spur A) is now organising the teams for table-tennis so anybody who is interested in competing, would they please see her as soon as possible.

Letter to the Outstations

Dear Colleagues,

You will by now have heard the news of Mr. Ratcliffe's coming retirement from R.S.R.S. and will no doubt read his statement with great interest. It was also fortunate that Dr. Saxton was able to call in and speak to members of the Station whilst he was in this country.

There has been belated compensation for the poor summer weather. The last week or two have been reasonably pleasant at least when the morning fog has cleared. Nothing wonderful perhaps, but better than we could hope for so near to November.

By the same token, our volunteer hewers of wood may once more be seen on their lunchtime expeditions looking for Guy Fawkes' bonfire fuel. The drawers of water will not, we hope, be needed. Last year there was a time when it looked as though some buildings might need replacing. This year the odds have been shortened somewhat by the building of two fresh huts near to the bonfire; but we trust all will be well.

Among the rather long list of staff changes you will see that two old friends, Alan Wright and 'Mick' Miller have left us, transferring to G.C.H.Q., and Tropical Products respectively. We send them all our good wishes.

At the time of writing there is a certain amount of speculation about the fate of a comet whose path is very close to the sun. Since it happens to be passing, will it drop in - or pass by? opinions differ. Whatever it may do it is an omen of change appropriate to the times; what a pity that a suitable quotation cannot be called to mind by

Yours sincerely,

The Editor

BRITISH ANTARCTIC SURVEY

We have just heard, with great regret, that three members of the B.A.S. from Halley Bay Base have been killed when their tractor fell into a crevasse. The following message has been sent to the base leader.

"The Director and staff at Slough send you all their deepest sympathy. We are all thinking of you."

It is hoped to give further details in our next issue.