

The O B S E R V E R

Vol. 8, No. 1

April 1968

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10-YEAR PIN AWARDS

At a special dinner on January 5, 1968 six employees received service pins for 10 years of employment with the NRAO. The pins were awarded jointly by D. S. Heeschen and J. W. Findlay to (from right to left) J. W. Findlay, H. Wooddell, D. S. Heeschen, B. Sheets, F. Cole, and F. Beverage (not pictured).

Vol. 8 No. 1

March, 1968

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EDITORIAL COMMENT

If you were to get a bucket, fill it with water, and then plunge your arm, elbow deep, into it you'd probably accomplish three things. Obviously you'd get your arm wet, at the same time you would displace a certain amount of water, and thirdly, while you're at it you might splash and stir up the whole bucket full. I realize that this is not exactly a revolutionary new scientific proposal, but it seems to me to be a reasonable analogy of the editors position on THE OBSERVER.

Volume 6, #1, back in August 1966, was that first plunge, and I was really quite concerned about being "all wet." "Well!" say I, "as long as you don't offend anyone, nothing is a total loss if you can at least get a laugh out of it." So into it we went. You know, it turned out that the "water" was warm, and really refreshing. And instead of just displacing a lot of time the OBSERVER became a rewarding experience due to its favorable acceptance by all of you.

For those of you who are relatively new to NRAO, I should point out that Volume 6 #1 was my first OBSERVER, but not The first OBSERVER. I simply took over where my predecessor, Ellis Ramsburg a Co-op student, left off. And even if I were a "Literary Expert," which I am not, the material still had to be worked into a publication through the efforts of many interested and talented friends, like my partner, Neil Albaugh, whose free-hand sketching we all enjoy, Howard Lambert, who was an Observer in his own right, Sue Miller and all the other gals who have the gift of being able to read our scratching and type it onto masters, and of course, the guys behind the scenes who really do the hard part--the printing, photo processing and publishing--the indispensable duo--Gene Crist and Ron Monk. And let's not overlook all of the "reporters" who provided so much of the material you read.

Well, getting back to the bucket again, THE OBSERVER did create quite a stir, a very pleasant one as far as I'm concerned, and for that as well as for all the fun I've had working on it, there will always be fond memories for me.

There is one last part to the analogy I have drawn. When you withdraw your arm from that bucket of water, the remaining hole is a measure of a man's indispensability. And so, I hope you will all notice that this issue is Volume 8 #1, not the end of anything, but hopefully a new beginning, for both the THE OBSERVER and Don Logan. I'll be leaving NRAO at the end of this February to pursue an opportunity recently available to me, and believe me, it was the most difficult decision I've ever had to make.

Now, how about a deal? Namely-I'll promise to write a few letters to the Editor, if you'll promise to send me future issues. O.K.? And so as I prepare to lay down my pen and pass the ink bottle, I want each of you to know how much my experiences with NRAO and its personnel have meant and will continue to mean, to me. It goes something like this:

Thanks. . . thanks for the memories.

H. Donald Logan

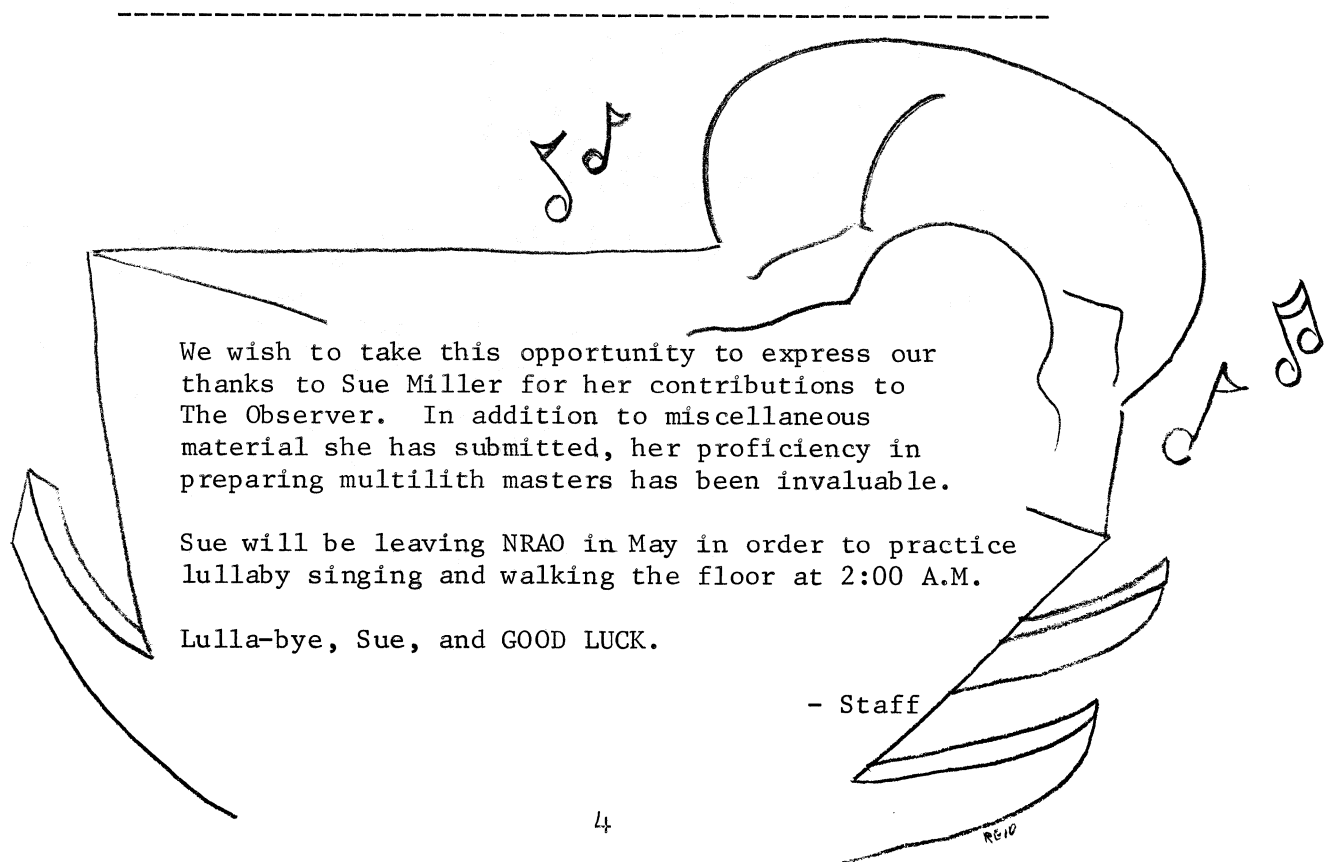
MEMO

TO: Observer Readers

FROM: Observer Staff

We must apologize for the delay in getting the Observer to press after Don Logan's departure. We had accumulated only enough material for a very small issue prior to Don's leaving and we have held it up in order to allow sufficient time to complete the issue and give Gene and Co. time to print. We could use some volunteers in the reporting field. It will be much easier to find an editor if we have a number of individuals submitting material to be edited.

Suggestions and recommendations for the future of The Observer will be most welcome and greatly appreciated. Address same to: The Observer, Room 222, NRAO, Charlottesville.



THE FUTURE OF SYMPOSIA

J. Lockman

The Institute of Sibling Rivalry*

It has oft been complained¹ that something is seriously amiss in the handling of conferences, symposia, et all. While we must agree in part with Lockman's observation² "anyone who actually goes to those things gets what he deserves," we nonetheless wish that a simpler remedy could be effected than total abstinence. So, after minutes of consultation with distinguished dill-
itante sociologists, secretaries and co-ops, some modest proposals have been drawn up for further consideration.

1. A Symposium should be held in an area with a "homey"³ atmosphere. One overstuffed sofa should be available for each participant, enabling them to relax as papers are given and catch up on a little sleep during "less interesting" discussions. If sufficient numbers of the participants are permitted to nap undisturbed, time spent on questions, discussion and short contributions will be greatly curtailed.

2. Cocktails should be served before the theoretical papers, in the hopes that the topics presented would be more readily understood and the merits of the theoretical proposals be more easily judged.

3. In the event of disagreement between two or more theories, which cannot be resolved on the basis of existing experimental evidence, provisions should be made to furnish weapons to the opposing factions and conduct a duel immediately. The winner would receive help from the experimentalist toward

1. Unprintable remarks by four astronomers, one engineer and ten thousand graduate students. 1960-1967 (unpublished)

2. Private muttering, December, 1967 (unpublished)

3. Frank Wright, The Natural House

*Operated without funds from any respectable organization.

verifying (or fudging) his theory, and the loser would have a new building named in his honor. In any case, duelling scars are "in"⁴.

4. Speakers should be encouraged to vary their presentations by interjecting examples of their talent in other fields. For example, a paper on HII distribution in the galaxy could be broken up with a piano recital, soft shoe number or showing of vacation slides by the speaker. Papers could be set to musical background, or even sung in the style of an operetta.

Example: The paper to be delivered deals with the discovery of ionized cobalt lines from all galaxies. The lights dim, the orchestra starts the overture and an excited astronomer sings, "The sky is alive, with the sound of cobalt. . . ." Enter dancing girls.

5. Translators should be available to translate the speaker's German-English, French-English, Japanese-English or English-English into a number of different dialects. Each participant could be issued earphones and a switch with which he could select his favorite dialect, or a variety of music, poetry readings, late sports scores, or selected lullabies.

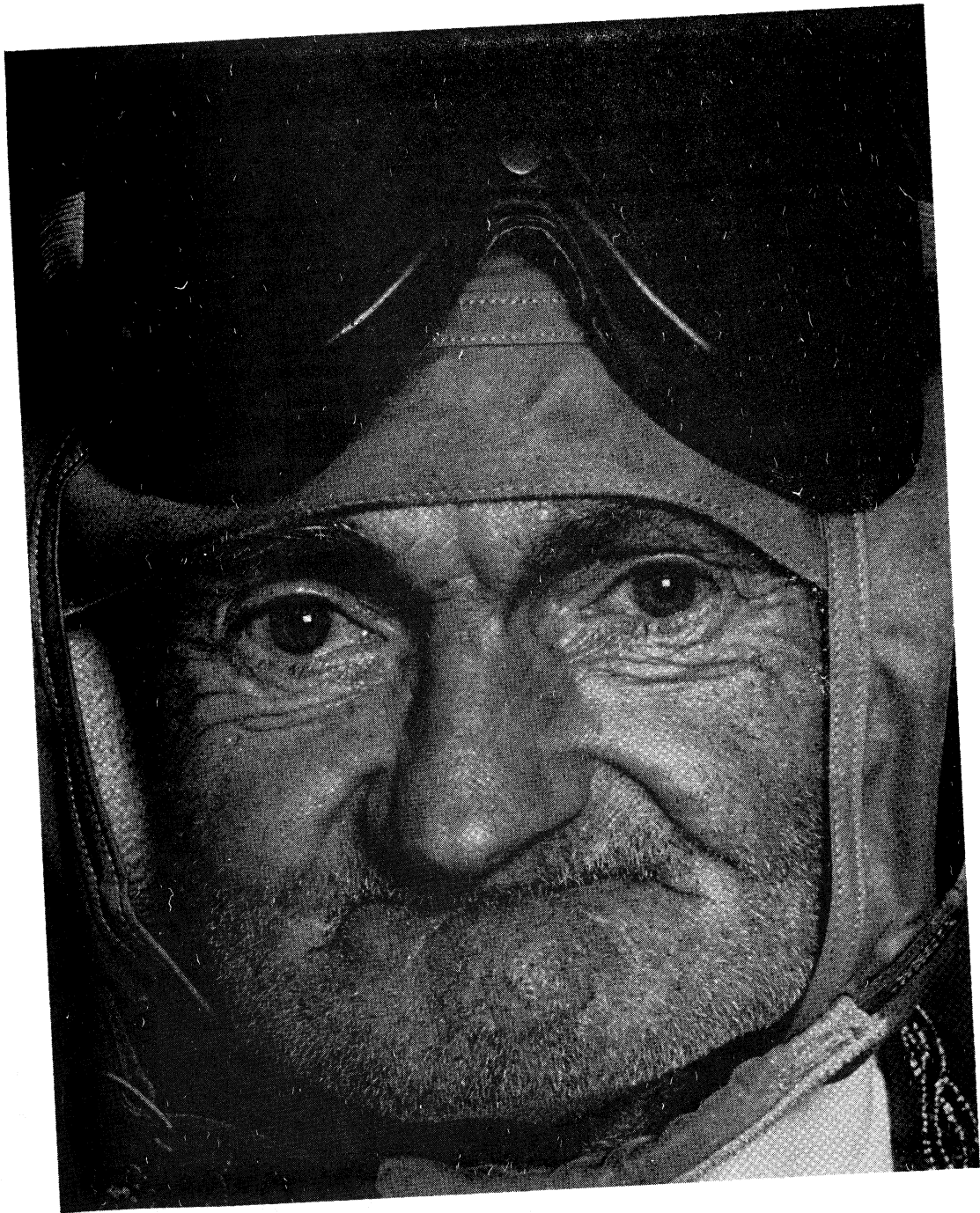
6. Slides should be made up by noted artists and prizes given to the best in the symposium with emphasis placed on originality, best use of data available, and artistic integrity. Salvadore Dali's map of electron temperatures in the Orion nebula superimposed on an abstract pen and ink drawing of the Roman colliseum is a worthy example of the possibilities open in this area.

4. Quoted on The Man from U.N.C.L.E., June, 1967.

While the suggestions herein, represent just a small number of changes that could be made, we hope that these will serve as the basis for further dialog on this matter.

In closing, we would like to say that although symposia can be vastly improved, there remains but one final solution:

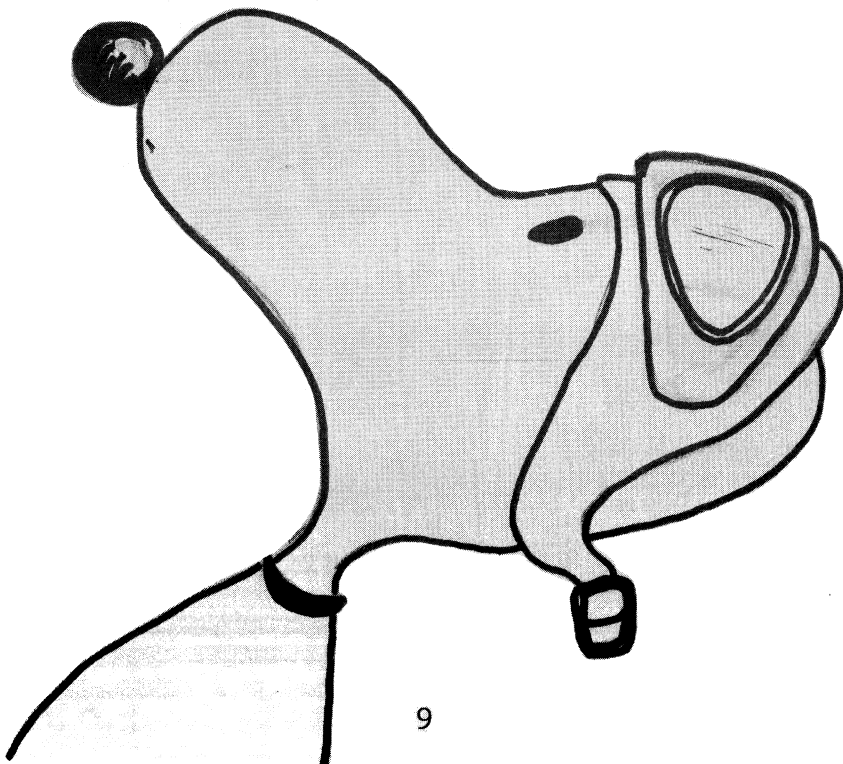
Stay home. The book will be much better than the play.



YESSIR, YESSIR, MISTER WESTLING, I BEN WOIKIN
DEZE HERE WAVES A LONG TIME! UH . . .
WELL . . . I MEAN MICO WAVES, AIR WAVES . . . DEYS
ALL SAME TING ANY WAY! I SURE DEPRECIATE
YOU ASSTROLOGY FELLERS GIBIN ME A KNU
KAREAR OP'TUNITY. END .. UH .. YOUSE CAN
ADD MY BEST RNEE GARDS TO THAT LOWGIN
FELLER.



THE RED BARON LIVES !! [CURRENTLY, IN WEST VIRGINIA]



INTERFEROMETER

By
Jon Spargo

Greetings from the land of those with three and one-half eyes. This brief report will contain newsworthy items extracted (sometimes reluctantly) from our contributing reporters including: Ace weatherman, John Weaver, Bill (I'll fix the link this time) Kuhlken, Leroy (coke run) Webb and others. As usual, also included will be the customary bits of rumor, hearsay and gossip.

We were all amused by the cover of the last issue of THE OBSERVER. However, a few moments of panic set in when it was learned that it would take us a couple of days to open up the road to Spencer's Ridge so that we could confirm our fondest dreams that Santa actually did cop the 42 ft. Our dreams were shattered, however, as one could tell by the facial expressions and audible mumbles of those involved, when the 42 ft. was reached at last. Various statements like, bum tip, false advertising, and Yeah! (Sigh) it's still there, were heard. On the serious side though, it must be said that the 42 ft. site has had more than its fair share of winter. It is not uncommon to hear reports of 50 plus knot winds accompanied by ridiculous amounts of snowfall, coming from those on duty on "The Ridge". The expression, long hard winter, has taken on new meaning for the 42 ft. crews. Our hats are off to all concerned for a fine job turned in under some really adverse conditions.

As one could expect Winter (Brrrrrr) is the really big news around here these days. Perhaps more adequately stated one should say when it snows, ugh!, when it doesn't, watch out, it will soon. A few people around here have climbed up some trees and gone out on a limb predicting various things such as amount of snowfall, early and late Springs and so on. If it is any help, our ace weatherman has gone out of his tree and started climbing the wall mumbling something about your guess is as good as mine.

The Interferometer took on a slight appearance of Hollywood recently as the National Educational T.V. Network set up shop to do a film on Radio Astronomy. We haven't heard anything yet about viewing dates for the general public or even sneak previews, but some of the footage promises to be interesting to say the least. Yours truly was involved for a few short moments with the photos and pending release of the film, will sign autographs as requested. Actually, I am told, the film is no small project. Something like 10,000 feet of film will be taken to provide enough material suitable for editing into a half hour show or about 1,000 feet.

Our Infra-red hygrometer experiment finally got off the ground a few weeks back. Liberally interpreted this means that now the astronomers will have an accurate method of determining when the sun is obscured by clouds. Some difficulty was encountered at first, however, until a small puzzle was solved. Seems as though there is a slight difference between Dutch AC power and ours. At any rate it was discovered that the hygrometers wired for AC the "Dutch way" were not fairing so well. All is well now, however, and Karel is back working on the VLA. Interestingly enough some wild results were obtained on the first run and excitement ran high until it was found that a crow was perched on the unit at 85-1, merrily pecking away at the aperture. We didn't catch the rascal so we couldn't find out who bribed him.

Leroy Webb has asked that any spare soda pop bottles found on site be donated to the Interferometer. It seems that two of the three cases of soda destined recently for the parched throats here-a-bouts, met with sudden disaster when left overnight in a truck during one of our recent cold spells. When confronted with the evidence, Leroy managed a couple of "well I'll be darneds" and "musta been cold" followed by a plea for extra empty bottles. All contributions will be gratefully accepted.

In spite of bad weather and other things not readily defined, our Microwave Link with the 42 ft. has been working very well after a shaky start. Rumors are now afloat about remote control for the 42 ft. which should make some operators happy if it is true. Recent trouble-free operation has prompted statements from Bill Kuhlken such as: "das vunderful" and "so vots new?". We are all waiting, however, for comments when the 42 ft. goes South, about 20 miles that is.

Well, I see by the old sidereal clock on the wall that it's time to log in a new source. But, before I go here is a sneak preview for you Interferometer fans. Next issue will have in store the complete dope on a great new story called:

Battling Barry vs. the DDP-116

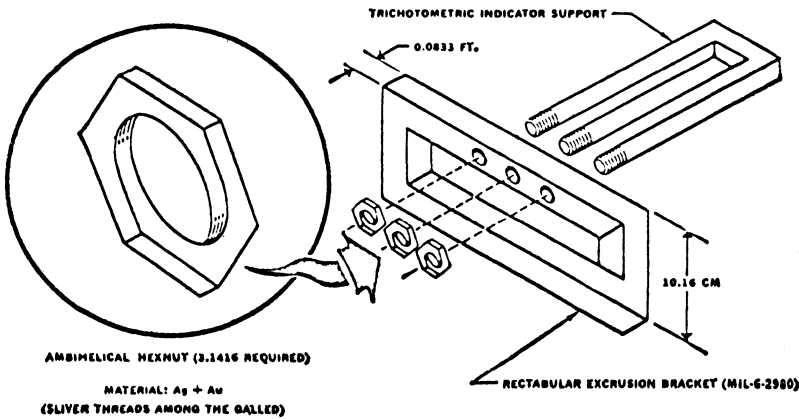
or

How to Regain a Lost Memory (Sigh!)

See you then.

Why Rectabular Excrusions

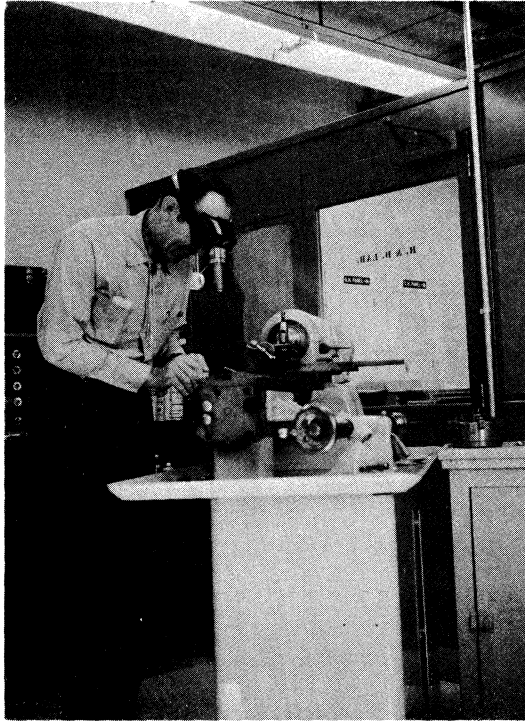
won't Transmogrify



Inquiries concerning the mounting of the Trichotometric Indicator Support indicate that some difficulty is being experienced with the brackets which attach the support. As an aid toward fabricating the support brackets, the accompanying illustration is provided to show the type of material as well as the dimensional data needed. It will be noted that in attaching the bracket to the support, a special ambihelical hexnut is used. The application of this nut is unique in that any attempt to remove it in the conventional manner only tightens it. Because of this design, the nut must be fully screwed on before it can be screwed off.

—Courtesy North American Aviation

15/March, 1966/Engineering Graphics



A recent addition to the Charlottesville facility of the NRAO is the Machine Shop, located adjacent to the Xerox-Mail Room, and proudly presided over by Marvin Wimer, pictured above.

Unlike the appearance usually expected of a machine shop, this one is very neat and clean, right down to the waxed and polished white tiled floor. Upon looking in, solely for the purpose of finding out what "went on" inside, one of the ladies was heard to comment, "That certainly is an attractive shop."

Getting down to "man-talk", Marvin tells us that the shop contains three lathes (one instrument and two other larger machine shop types), a metal bandsaw, drill press, horizontal and vertical metal sanders, precise milling machine, metal shear, an ultrasonic cleaning machine, micro-welding equipment, and an assortment of hand tools, among which are tweezers and a jeweler's microscopic screwdriver. There are also limited silver and gold plating facilities.

Upon inquiry as to what he did in the shop, Marvin said, "Well, for one thing, I make parts for the parametric amplifier used in the front end system of the microwave radiometer." Being intrigued, this reporter asked to be shown a sample of his work. Marvin displayed what appeared to be a simple brass part about three inches long, and not nearly so awesome looking as had been expected. However, disappointment quickly changed to fascination when he explained that the object was identified as an "inner conductor and components" and was made up of nine pieces, the smallest of which was 1.5 millimeters (.0590 of an inch) in diameter and 6.8 millimeters long. Marvin had made all the pieces, using various grinding, cutting, and and shaping processes, and had assembled them, the whole of which was to be placed in an "outer conductor," the description of which will not be entered into, but all eventually going to make up the mentioned parametric amplifier. Marvin added that the smallest component he had been called upon to make was ground from part of a needle and was .23 millimeter in size. This obviously explains the need for microscopic equipment.

Marvin has been an employee of NRAO at Green Bank for seven years. Prior to his being employed by NRAO he worked for a number of years as a watchmaker. This is a good indication of how he developed his interest and ability in manufacturing and working with such minute and intricate items so necessary to research and development in the field of Radio Astronomy.

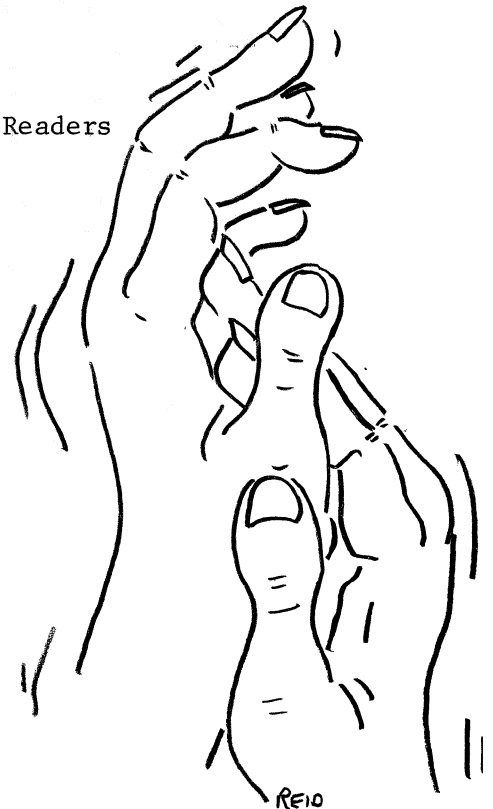
- Clarabell Folks



TO DON LOGAN

Hail, Editor Logan, with your mighty pen!
May the Good Dame Fortune be your friend.
May your wit and humor and repartee
Never fail to accompany thee.
As you embark for a new port of life
We wish you a voyage free from strife.
In gratitude and appreciation
We give to you a standing ovation!

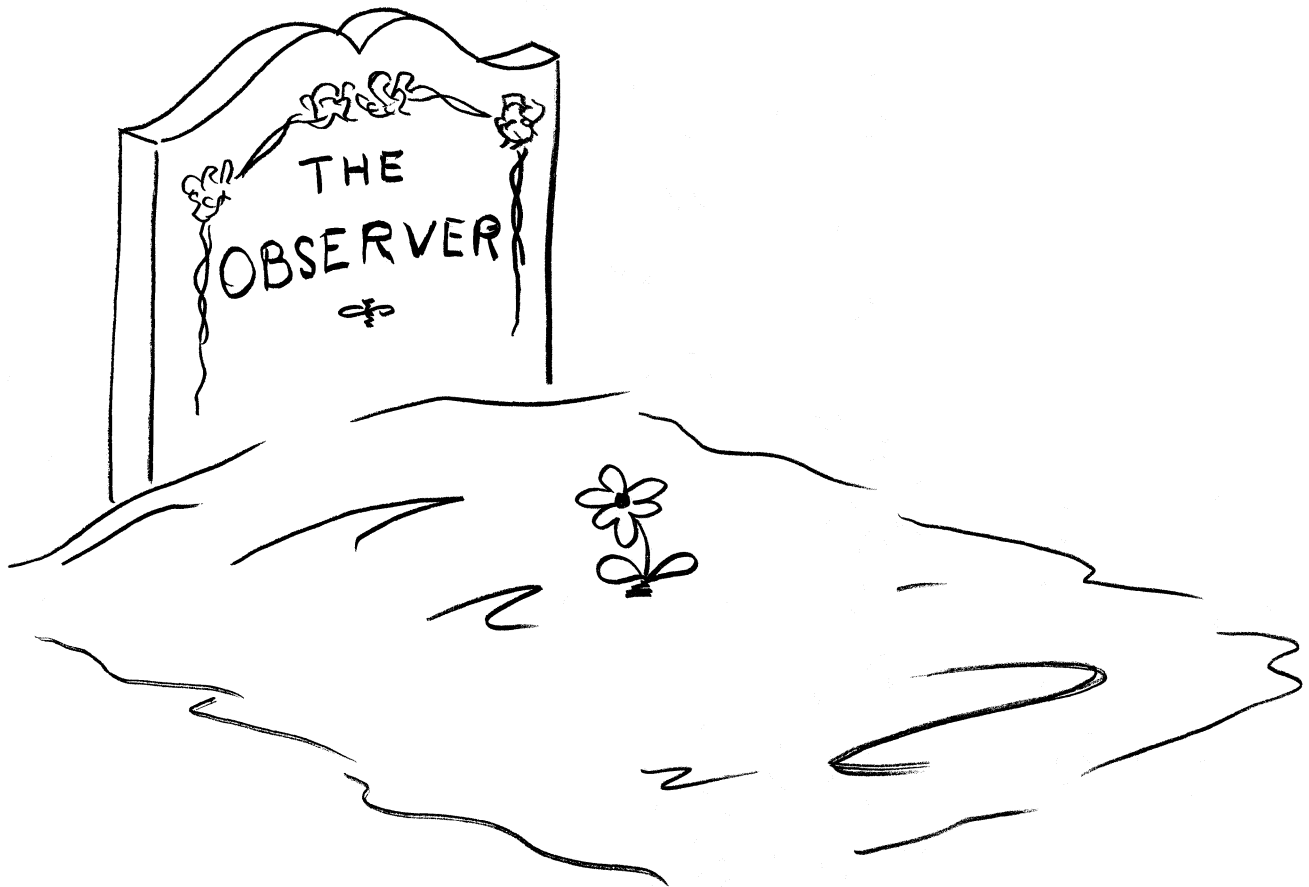
- Observer Staff and Readers



CLASSIFIED ADS

HELP WANTED: MALE OR FEMALE

EDITOR - for small organizational publication. Challenging work (often encompasses all phases of publication including writing, editing, and typing finished copy) - flexible hours (name your own, as long as they don't conflict with regularly scheduled work load) - interesting pay scale (regular periodic increases from minimum of noticeable nerve-wracking neglect to maximum of careful constructive criticism) - liberal benefits program includes no vacation, insurance or retirement plan (unless publication is inferior in which case retirement is hasty) - special incentive bonus of 244 smiles awarded annually for job well done. LIMITED number of applications will be accepted. Address resumes to: THE OBSERVER, Room 222, NRAO, Charlottesville, Virginia.



IN MEMORIAM

THE OBSERVER, remembered by employees of NRAO for the many tireless efforts rendered to inform (?) and entertain (?) them with the internal and external goings-on about the Observatory, passed away following a recent illness. Investigating authorities stated that The Observer had been in ill health for some weeks and attributed death to neglect and severe malnutrition.

Memorial services are incomplete.

(WELL --- IT COULD HAPPEN)!!!