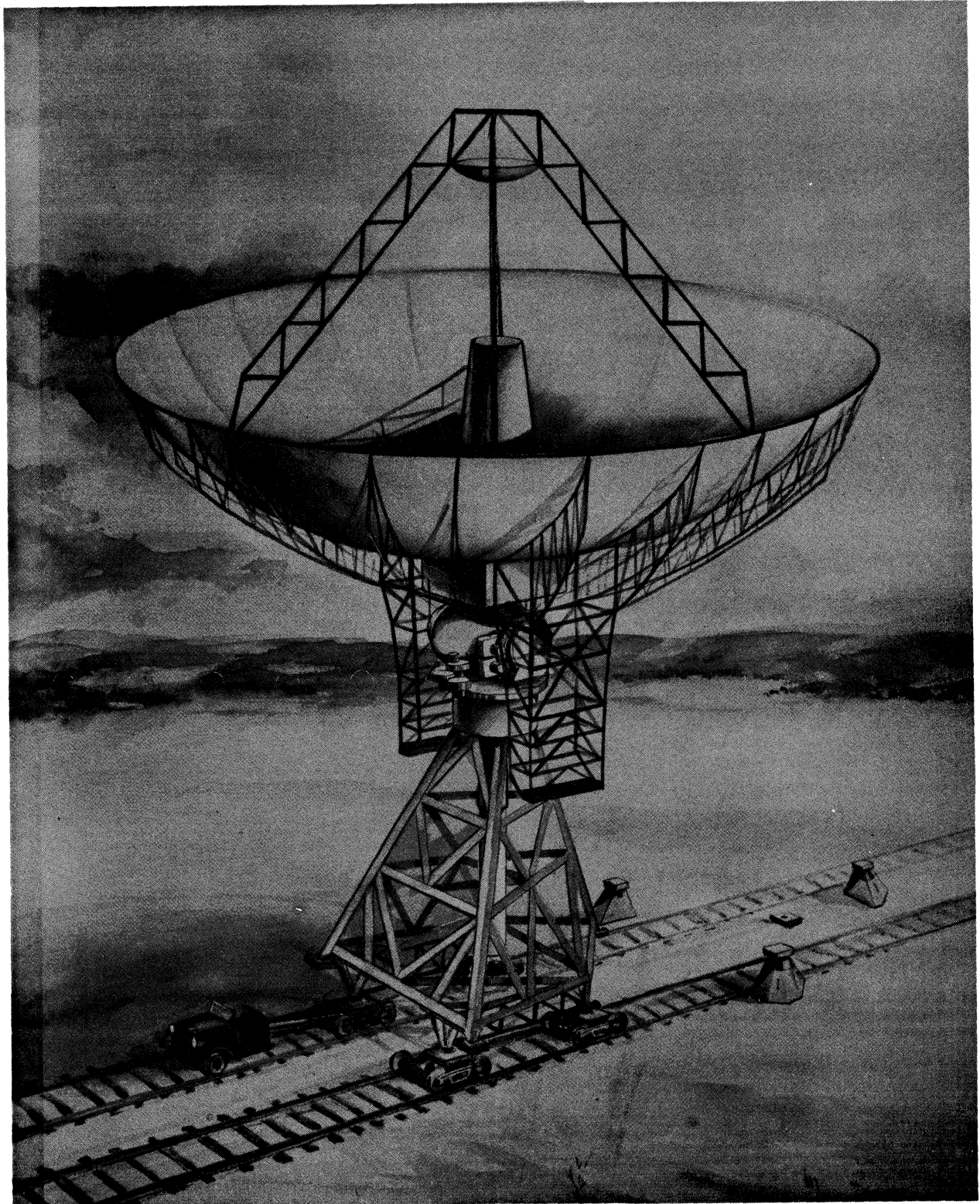


The O B S E R V E R

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Page 1



L I O N E L

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Editorial Comment

by H.D.L.

One of the numerous attractions of NRAO, to me at least, is the opportunity to meet people whose abilities and skills are other than your own. It's interesting to see how all of our various contributions result in the National Radio Astronomy Observatory itself. But by the very nature of the support some provide, they themselves may possibly become taken for granted.

The establishment of our Charlottesville facility necessitated the "shuttle" between Green Bank and here. Five, and frequently six, days a week the 125 miles between are effeciently overcome by two men who help keep us in contact, even when the telephone can not. Quite often the "freight on board" is more expensive than the combined cost of both cars, and it certainly requires a lot more skill than luck to safely navigate snow-covered mountain roads. Yet, through it all the "shuttle" is almost always right on schedual.

I feel certain that I speak for all of us at NRAO, and with pride, when I extend a sincere thanks to Brown Cassell & James Garland.

For NRAO
H.L. says
Welcome Newcomers!

Welcome aboard all you nice new people who have recently come to work for NRAO. Though you probably haven't become acquainted with everyone, and perhaps never will, it's nice to have you and you will enjoy your stay with NRAO!

Let's see now, there's

A.J. Burford
Dave Buhl
Ellen Dillon
Georgia Rietz
George McGrory (how do you like the new name, Bob?)
Lee King
N.C. Mathur
Faye Slayton
Bill McLaughlin

Forgive me if I've missed anyone. Let us know if you are a newcomer and your name isn't here - oh yes, Dennis (the menace) Andrews, I almost forgot you!!!!!!

It's important to us to know some of the particulars about our newcomers and I'll list a few things about some of them.

First, Ellen Dillon has been asked if she's Matt Dillon's wife. She didn't say yes or no.

Second, there's Georgia Rietz. She wore a pretty red dress to work the first day, didn't she?

Third, there's Faye Slayton. Faye came from Waynesboro, Va. where she has been employed by the Virginia National Bank. If anyone needs a loan, see Faye. She can give you all the details.

Last, but not least, there's Bill McLaughlin. Bill is a native Mountaineer, coming from Franklin, W.Va. He's an experienced cook and he'll be fixing some of the low calorie foods at the Green Bank cafeteria. Just remember this Bill. When anyone comes to Green Bank from Charlottesville on the shuttle and eats at the cafeteria, serve big servings. It's a long hard trip and takes a lot out of a man.

Might I add that I think Jim Finks is to be congratulated on his choice of new employees. Why just seeing some of them running around the building almost makes working for a living worth while!!!!

Observing

by H.D.L.

It always feels a little like homecoming whenever I return to Green Bank, but the last time it was like being back on Long Island. The tide was in at Marlinton and Cass. I heard that Dick Skags is going into the real estate business; selling waterfront property.

Word has it that Carl Davis is a secret agent for the Forest Service. The way we understand it is that he has been tapping maple trees. Better keep an eye on Howard Brown! I noticed he's become a second story man, or does that pertain to 140' joke sessions?

Johan Schrammel has been quoted as stating: "Contrary to popular American belief, Volkswagens are NOT produced by little old German ladies, knitting steel wool!"

Our men on Kitt Peak, Ralph Burhans and Bill Terrell, have proposed that we convert the 36' installation into a bar & grill. We could call it a NO-GO joint, and boast the world's largest cuspidor.

Is it true that the VLA is secretly financed by the CIA?

Are UFO's really only Bill Kuhlken's reject bagels?

Welcome to NRAO, all of you new employees. In case you're not sure what it is we do here, just read on. We're concerned with discovering the mechanisms of evolution of the universe. Of course all of us in Electronics already have it figured out. Everything depends on the four elements, Fire, Air, Earth & Water, which, as any B.S. holder knows, become the key substance of creation: Lodestone!

Take heart, all you 4-H clubbers in Charlottesville. The University Grounds and Maintenance people have issued a memo stating that the tree they planted outside Judy Dulski's window will live! Maybe they'll plant another so we can at least tell visitors that they're antique goal posts.

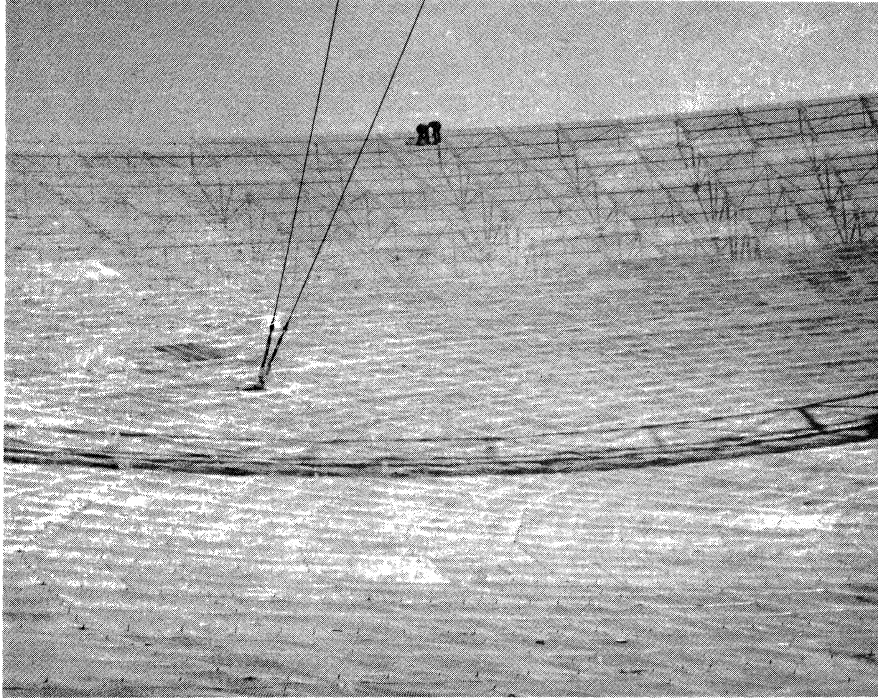
We understand Emily wants to fire her assistant - I heard her grumbling something about the "... damn card reader ..."

The "It does not compute" group apparently have some kind of gambling thing going on with the 360. I heard Joe say the machine lost 2 bits the other day. But I guess that's nothing as compared with Paul. He claims the thing took a bite right out of his Heinograph.

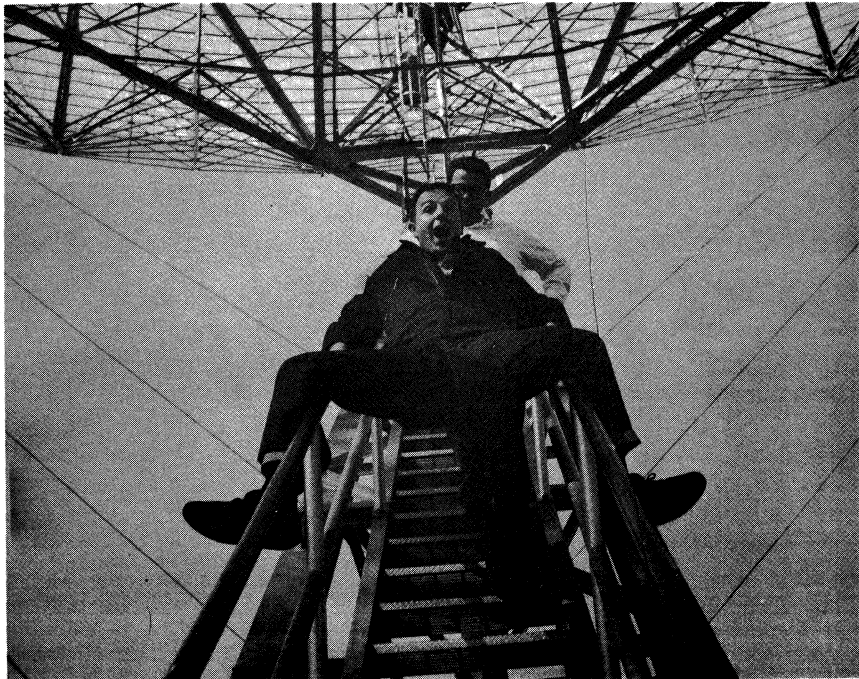
And so until next issue, let me leave you with this thought:

Halitosis sure beats no breath!

H.D.L.



HA! YOU LOSE COONEY, AND
I'LL TAKE MINE WITH CREAM & SUGAR.
MY PENNY IS MUCH CLOSER TO THE
EDGE.



OK, OK
CLAUDE;
I'LL BUY,
I'LL BUY.

The New NRAO Machinist Facility

or

"You Fake It, We Make It"

by Omar Bowyer

Within the Observatory a great merger has taken place - a kind of mechanical consolidation. Increasing demands upon the machine shops indicated a need to reorganize in order that we might better meet the requirements of our division.

The Central Machine Shop Division is now located in the Works Area building along with the carpentry and paint shops. This division consists of four groups: the sheet-metal shop, general machine shop, telescope mechanics, and precision instrument shop.

Dorman Williams is the Foreman of the sheet-metal shop, which consists of sheet-metal fabrication, welding, and front-end box production. All items such as cable trays, braces, containers and duct work should also be referred to this group.

Ed Gardner is responsible for the machine shop. All lathe and mill work for panels, feed assemblies, custom electronic chasis and the associated mechanical hardware should be sent here. Ed will check your drawings and see to it that the work is completed to your specifications. To avoid a waste of time and material it may be necessary to briefly discuss the plans with those concerned.

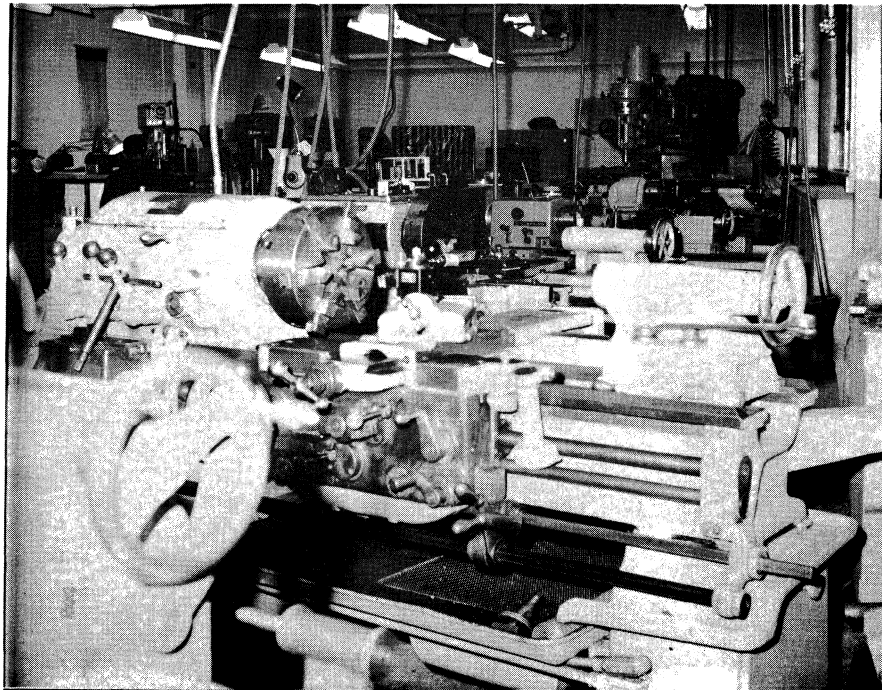
Herb Hanes is Foreman of the telescope mechanics, whose responsibility it is to install receivers on the respective telescopes, perform certain telescope maintenance, and otherwise take care of associated telescope equipment. Telescope supervisors and engineers should coordinate their telescope work requirements through Herb Hanes.

Marvin Wimer is responsible for precision machine work on physically small jobs, as well as instrument repair involving mechanical work. Marvin should not be requested to perform any routine-type of work which can be handled elsewhere. This shop is located in the basement of the Laboratory building.

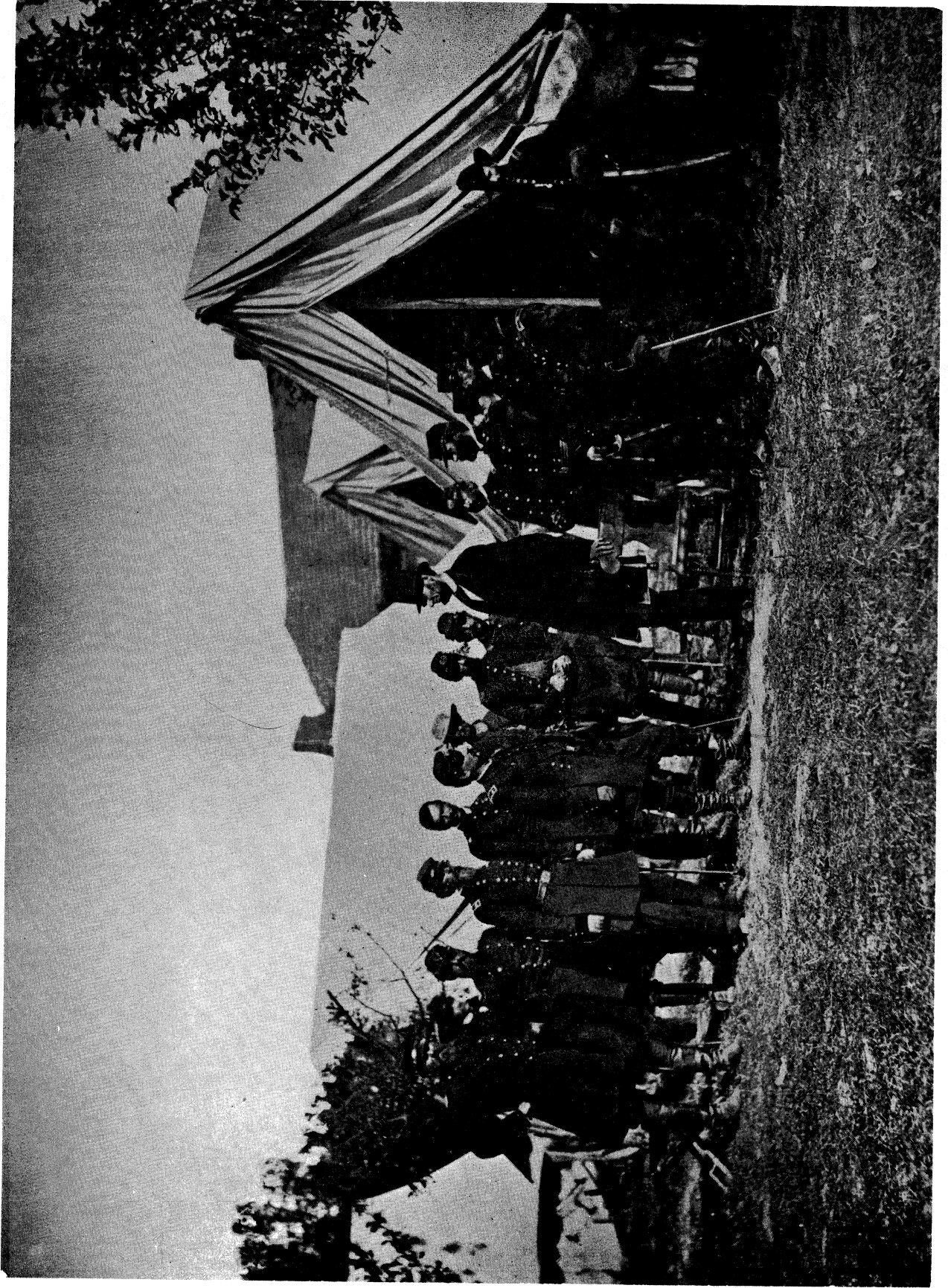
Also in the same area as the instrument shop is the "do-it yourself" machine shop, for those small pieces of work which a person may feel he can handle himself. However, do not attempt to operate any device or machine which you are not experienced in using. This may prove to be an injurious and costly endeavor. When in doubt - get help.

When submitting work to any of the groups, please allow as much time for completion as possible, and be sure to include your name, project and account numbers.

The new Central Machine Shop,
as viewed from one end to the other and back again.



Division Head Bowyer calls a field meeting of his staff



"Just Talkin"

by H.L.

After looking at the pictures of the childrens' Christmas parties in Green Bank and Charlottesville, one has to wonder just a little. Does NRAO continue hiring young married couples with young children, or, are the old-timers at NRAO younger than we think. Way back in 1962, when I brought my children to their first NRAO Christmas party, the conference room was full to the ceiling with nice young kiddies, as it was in each succeeding year. Now, however, a segment of the NRAO populace has moved to Charlottesville - and guess what - the Green Bank conference room is still full of kiddies and so is the auditorium at Charlottesville. It must be that NRAO continues hiring young couples with young children.

I wonder if Santa has filled all the requests that were made of him. Mrs. Finks asked for a new Chrysler with a garage to put it in. Mrs. Tyler want a new car or something like that. Has Santa filled your requests? If he hasn't, maybe you should put on a little more pressure.

I, for one, like the "One Picture is Worth" section which has been in recent issues of the Observer. Some of them have been great, and I hope it continues. It's a fun idea to have our own "Candid Camera" type of thing going. In case you were wondering, the picture of Ray Hunter is not just a joke. He's often wired up like that when checking equipment. Occasionally, however, the Bat symbol appears on his eyeballs instead of the oscilloscope. That's a good one of Carl and Peck, don't you think? They're not arguing over who should hand out the screwdrivers. They're pulling taffy. How about that one of the switchboard operator? Her pronunciation of "Nashunal Wadio Astwonmy Zerbatory" is great. As a matter of fact, it's very good. You should hear what some people call us. And, how about that last cover picture? Isn't that Odell and Maxie getting ready to send Russ Buzzard to the 140' to clean up oil from a leaking hydraulic system? Russ will get her cleaned up, if he can just get the durned thing stopped somewhere between the end of the runway and the 140'.

We, at Charlottesville, heard rather belatedly that Jimmie (kept us smiling) Ryder has left NRAO employ. We are sorry to hear that Jimmie has left. That guy could smile in -40° weather after eating green persimmons. Bye Jim - hate to see you go - but hope you do well in your new job.

Another departed NRAO employee will be missed very much by all who know her. That's sweet "Snookie" who worked so hard and so well to keep everyone happy with the balance on his pay check, or the balance of his vacation and sick leave. Good luck and best wishes "Snookie".

The Machine Application of a Terminological
Substitution Algorithm to the Rhymes
of Mother Goose

Mary, Mary, quite contrary,
how does your system grow,
with FORTRAN faults and Sysgen halts
and ABENO dumps all in a row.

Little Joe Greenhalgh
sat in machine hall,
computing a quarter of pi,
but he put in COMPLEX
for programming checks,
and got out .7854 i.

Baa, baa, Bill Gee, have you any system?
"Yes sir, yes sir, please let me list 'em.
One multiprograms, two takes it further,
and three's for the errors in both of the others."

360, 360, where have you been?
"Down in the basement, computing a mean."
360, 360, what did you there?
"Made all the programmers pull out their hair."

Al Braun could work til dawn,
his wife could work til four,
and thus you see, they can be
in sequentially adjacent core.

Paul be nimble, Paul be free,
put DSORG in your DCB.

Hey diddle diddle,
to solve a riddle
a source jumped under the moon.
The astronomers laughed
to see such craft,
but the dish ran away too soon.

The 140'

by Bill Hunter

The 140-foot has been operating almost two years, and we are happy to report that it is still sitting up there on its' massive bearing smiling at the countryside.

We have experienced a number of frustrating periods of down time due to mechanical weakness and electronic breakdown, but these were quickly and efficiently repaired or replaced by the very capable team, Brown, Marcum and Poling. The failures that have occurred are but a minimum of the amount anticipated and have been beneficial, in a way, as it has enabled us to incorporate improved design to some motors, couplings, rods, pumps, accumulators and other parts. These changes, no doubt, will give us better operation with less time lost over the long haul.

Working in the swirl of oil and running machines, leaks and calamity are bound to occur periodically and we wish to take this opportunity to thank Russ Bussard and Jim White for the very commendable job they do keeping order and cleanliness in our surroundings.

The operators too, we think, have tried to do an efficient and conscientious job with the variety of observing schedules, but, being human, we err and sometime may be doing injustice to some observer and not be aware. If this be the case, we would appreciate your calling our attention to such, especially visiting scientists who might be a little reluctant to mention minor details which might be important at a later time.

Two of our very good friends and associate operators are leaving NRAO to work at Arecibo. Troy Henderson, already there, reports he is doing fine and enjoying the beaches and Caribbean breeze. The work is similar, but different inasmuch that they are also involved in radar. Ralph (Tom) Hawkins will leave us April 21st. Both fellows will certainly be missed here and we wish for them the best.

Tom Carpenter is being transferred from Interferometer Control to replace Ralph. Welcome, Tom, to the 140-foot.

Spring has begun to hit the guys here pretty hard. Vance and Brown plowed their garden and put out a few plants for Jack Frost. Vance toughed it out all winter with black and white. Soon as spring came he bought color so he could break it in gradually and make it last through the guarantee. Brown has driven the same car for three months, but he's looking around for a deal. The ash tray is full.

The 140' - continued

Van Horn stays plenty busy. It takes a half-day to groom his dog "So Big", then has to prepare a special order of hot dogs and pickles at 3 a.m.

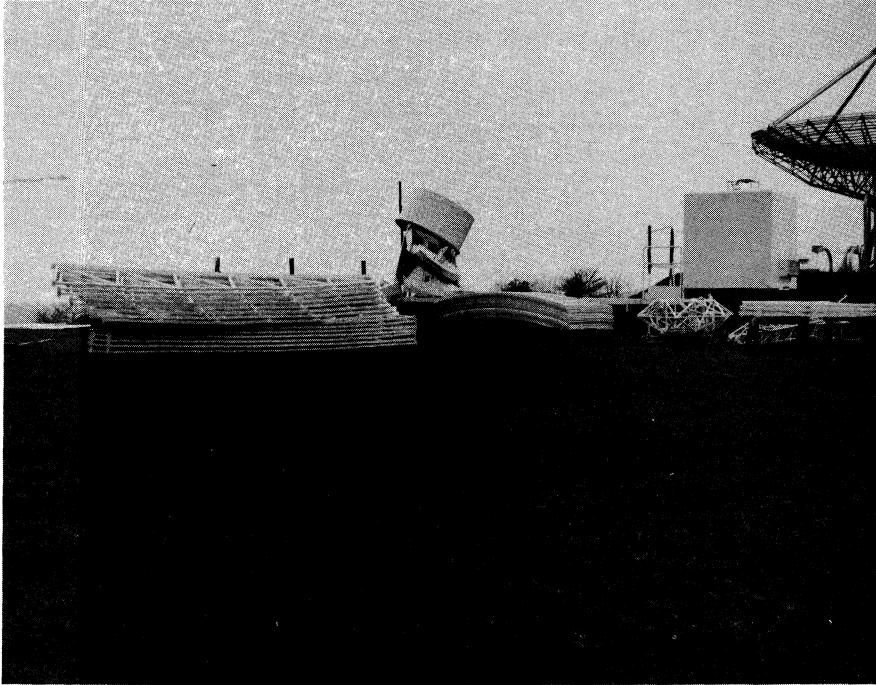
Hunter caught his first trout and felt pretty cocky till Brown got one twice the size.

Oh well, hope for a cheery report next month. See you then.

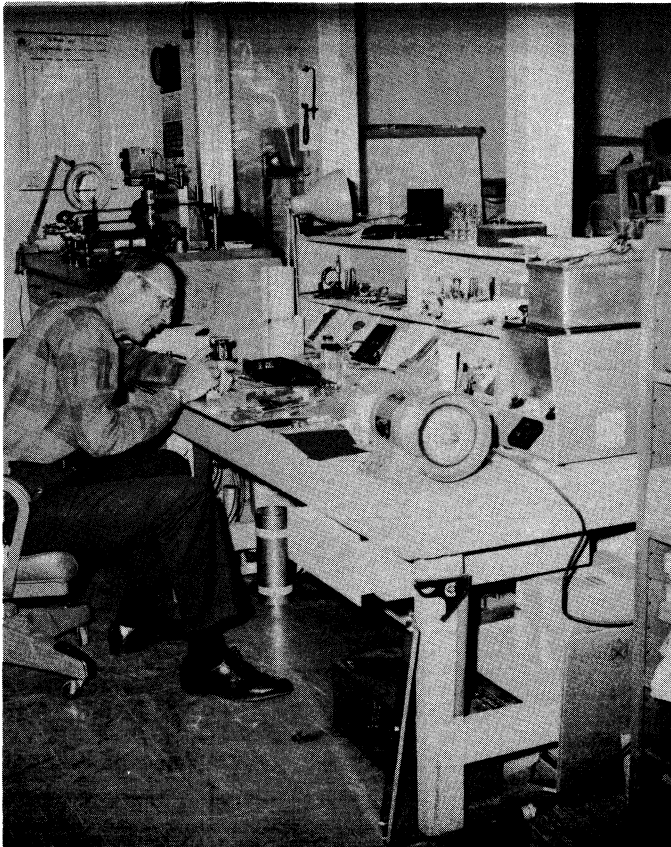
140-foot
Bill Hunter, Spokesman
No offense intended

P.S. Experimentation has proven the 9.5 mm front end box to be capable of holding a water level of 6" before forcing the water out through the new QWL connector.

Editor's note: and if I ever catch the guy who poured it in there, I'll revoke his subscription to the Observer.



GEE WHIZZ, OMAR,
I THOUGHT YOU
HAD THE
INSTRUCTION
MANUAL



YES SIR, IF I MILL
OFF ANOTHER .00371
INCHES, AND CAREFULLY
POLISH IT, THIS HERE
FINGERNAIL OUGHT
TA BE JUST RIGHT

The Spirit of NRAO

by H. Donald Logan

NO, this is not going to be a plea for increased membership in the Recreation Association, but rather a somewhat startling revelation of our recent encounter with the spirit world.

For it just happens that our 36' radio telescope on Kitt Peak, Arizona, is located on a 6,875-foot vantage point which is revered as a traditional holy place by the Papago Indians. For centuries these precipitous precincts have been strictly off-limits to outsiders. You see, its the favorite haunt of their "top God," Ee-Ee-Toy.

So one can imagine the concern, both by the Papagos and the astronomers, when nine years ago the National Science Foundation chose Kitt Peak as the spot ideally suited to locate the nation's first National Optical Astronomical Observatory.

Placing one of the world's largest, sun watching telescopes on this sun-kissed mountain site 53 miles west of Tucson is one thing, but it is quite another matter when this mountain happens to be right in the center of what some 8,000 Papago tribesmen consider "the sacred center of creation." I suppose this could have had some bearing on the fact that NRAO decided to place our installation on Kitt Peak. After all, its one of the main concerns of radio astronomy to discover the mechanisms of creation.

With the Papago blessing, Kitt Peak has blossomed into a 20 million dollar, self contained summit laboratory. Co-stars of the lofty show are the 5 million dollar Robert R. McMath, optical solar telescope, and the as yet un-named 1 million plus, 36' millimeter wavelength, radio telescope.

Officials hope that their special kind of sun worship might shed new light on such things as the secret of solar energy; you know that amazing stuff that sustains life on earth. Even the upcoming manned flight to the moon will rely on what the Solar Observatory learns about the severe solar radiation belts.

Here on Kitt Peak "the men with long eyes" (astronomers) seek to discover how the universe evolved. The Papago people, who don't pretend to be scientists, feel they already know the answer. "Ee-Ee-Toy made the universe," they insist.

So, what better spot to find the answer than here in the "center of creation," the abode of Ee-Ee-Toy himself.

