Date: October 21, 1976

To: MEMO FOR THE RECORD

From: R. T. Frost

Subject: Contacts with Centric and Start of JMOF Job

Background:

Based on information from Furman Anderson of Kline Iron and Steel, their subcontractor, Centric, planned to start work at the JMOF site on Monday, October 18, 1976. A temporary restraining order issued against the State Board of Land Commissioners to block the lease to NOAA was scheduled for court hearing on Friday, October 15.

Counsel advised us to do nothing on the site until the court had acted on the temporary restraining order.

The hearing was held as scheduled, but did not conclude. It was continued until 8:30 a.m., Tuesday, October 19:

1. At 5:15 p.m., October 15, I called Centric and reached Dale Hamilton, Executive Vice-President. In response to my information, Dale indicated there would be no inconvenience on Monday; they would schedule their survey work for the construction points.

2. On Tuesday, October 19, I learned the hearings had been postponed until 4 p.m. that day. At approximately 9:30 a.m., I called Centric and talked to Stu Wood. Advised of the information, Stu seemed a little anxious for a resolution and wished us luck. I promised to call as soon as I know the decision.

3. At 5:15 p.m., the court dissolved the TRO and adjourned. I called Centric. No officer was present. I left this message for Stu with a secretary:

   "Court ruled for State. Proceed with work. I'll call in the morning."

4. I called and talked to Stu Wood at about 8:30 a.m. on October 20. Stu had received my message and they were planning to proceed. He expressed doubt about the guidance Kline had given them on the survey points. I advised Bob Krinks would call him and resolve the problem.

Separately, I informed Stu directly of the special problem with the Outer NW Anchor Point on Carlson's land. I asked Stu if he could give me an informal idea as to their normal construction procedures and when he might expect to start work at that location. Stu indicated their plan called to start work at the tower, then to the inner set of three anchors, then the outer set of three anchors. He said work would proceed from point to point as completed jobs. He said he estimated work would start on the Carlson Anchor November 12.

I concluded our discussion emphasizing that my comments were in no way intended to constrain their work procedure, but that for reasons cited, work at the Carlson Anchor site should be scheduled last, consistent with the work plan expressed by Stu Wood.

Thursday morning, Bob Krinks indicated the survey problem was resolved and work was proceeding.

cc: N. Stiewig 10-22-76
Merle Gibson
J. Hall
Bob Krinks

OFFICE OF BUILDING INSPE
Phone: 356-4000 ext
915 10th S
GREELEY, COLORA

WELD COUNTY COLORADO

October 6, 1976

Action Info
✓

10-12-3

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Environmental Research Laboratories
Boulder, CO 80302

Attention: Mr. Robert Frost-Assistant Director
Wave Propagation Laboratory

Dear Sir:

In reference to your letter of September 14, 1976 regarding fees and building permits for the tower project, I am advised by the Weld County Attorney, based on his research of similar cases, that such permits and fees are required.

Therefore, we will require Building and Electrical permits and fees either from the owner or lesse of the property.

Sincerely,

J. E. Jarvis

Joseph E. Jarvis, P.E.
Director Building Inspection

emm

9/23/76

Russ Anson ----------Assistant County Attorney
Weld County Centennial Center
915 10th Street
Greeley, Colorado 80631

N. W. Stiewig

X

are copies of two decisions of the
ler General pertaining to paying
permit fees by the Federal Govern-
f you would like to discuss these
please call me on (303) 499-1000,
n 6219.

0 - Pages 28, 29, 30
7 - Pages 232, 233

2. In all cases affecting ambassadors, other public ministers and consuls, and those in which a State shall be party, the Supreme Court shall have original jurisdiction. In all the other cases before mentioned, the Supreme Court shall have appellate jurisdiction, both as to law and fact, with such exceptions, and under such regulations as the Congress shall make.

3. The trial of all crimes, except in cases of impeachment, shall be by jury; and such trial shall be held in the State where the said crimes shall have been committed; but when not committed within any State, the trial shall be at such place or places as the Congress may by law have directed.

Section 3—Treason Defined. Proof of. Punishment of.

1. Treason against the United States, shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

2. The Congress shall have power to declare the punishment of treason, but no attainder of treason shall work corruption of blood, or forfeiture except during the life of the person attainted.

ARTICLE IV.

Section 1—Each State to give credit to the public acts, etc., of every other State.

Full faith and credit shall be given in each State to the public acts, records, and judicial proceedings of every other State. And the Congress may by general laws prescribe the manner in which such acts, records and proceedings shall be proved, and the effect thereof.

Section 2—Privileges of citizens of each State. Fugitives from justice to be delivered up. Persons held to service having escaped, to be delivered up.

1. The citizens of each State shall be entitled to all privileges and immunities of citizens in the several States.

2. A person charged in any State with treason, felony, or other crime, who shall flee from justice, and be found in another State, shall on demand of the Executive authority of the State from which he fled, be delivered up, to be removed to the State having jurisdiction of the crime.

(3. No person held to service or labor in one State, under the laws thereof, escaping into another, shall in consequence of any law or regulation therein, be discharged from such service or labor, but shall be delivered up on claim of the party to whom such service or labor may be due.) (This clause was superseded by Amendment XIII.)

Section 3—Admission of new States. Power of Congress over territory and other property.

1. New States may be admitted by the Congress into this Union; but no new State shall be formed or erected within the jurisdiction of any other State; nor any State be formed by the junction of two or more States, or parts of States, without the consent of the Legislatures of the States concerned as well as of the Congress.

2. The Congress shall have power to dispose of and make all needful rules and regulations respecting the territory or other property belonging to the United States; and nothing in this Constitution shall be so construed as to prejudice any claims of the United States, or of any particular State.

Section 4—Republican form of government guaranteed. Each State to be protected.

The United States shall guarantee to every State in this Union a Republican form of government, and shall protect each of them against invasion; and on application of the Legislature, or of the Executive (when the Legislature cannot be convened) against domestic violence.

ARTICLE V

Constitution: how amended; proviso.

The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose amendments to this constitution, or, on the application of the Legislatures of two-thirds of the several States, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several states, or by conventions in three-fourths thereof, as the one or the other mode of ratification may be proposed by the Congress; provided that no amendment which may be made prior to the year one thousand eight hundred and eight shall in any manner affect the first and fourth clauses in the Ninth Section of the First Article; and that no State, without its consent, shall be deprived of its equal suffrage in the Senate.

ARTICLE VI.

Certain debts, etc., declared valid. Supremacy of Constitution, treaties, and laws of the United States. Oath to support Constitution, by whom taken. No religious test.

1. All debts contracted and engagements entered into, before the adoption of this Constitution, shall be as valid against the United States under this Constitution, as under the Confederation.

2. This Constitution, and the laws of the United States which shall be made in pursuance thereof; and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land; and the judges in every State shall be bound thereby, any thing in the Constitution or laws of any State to the contrary notwithstanding.

3. The Senators and Representatives before mentioned, and the members of the several State Legislatures, and all executive and judicial officers, both of the United States and of the several States, shall be bound by oath or affirmation, to support this Constitution; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ARTICLE VII.

What ratification shall establish Constitution.

The ratification of the Conventions of nine States, shall be sufficient for the establishment of this Constitution between the States so ratifying the same.

Done in convention by the unanimous consent of the States present the Seventeenth day of September in the year of our Lord one thousand seven hundred and eighty seven, and of the independence of the United States of America the Twelfth. In witness whereof we have hereunto subscribed our names.

George Washington, President and deputy from Virginia.

New Hampshire—John Langdon, Nicholas Gilman.

Massachusetts—Nathaniel Gorham, Rufus King.

Connecticut—Wm. Saml. Johnson, Roger Sherman.

New York—Alexander Hamilton.

New Jersey—Wil: Livingston, David Brearley, Wm. Paterson, Jona: Dayton.

Pennsylvania—B. Franklin, Thomas Mifflin, Robt. Morris, Geo. Clymer, Thos. FitzSimons, Jared Ingersoll, James Wilson, Gouv. Morris.

Delaware—Geo: Read, Gunning Bedford Jun., John Dickinson, Richard Bassett, Jaco: Broom.

Maryland—James McHenry, Daniel of Saint Thomas Jenifer, Danl. Carroll.

Virginia—John Blair, James Madison Jr.

North Carolina—Wm. Blount, Rich'd. Dobbs Spaight, Hugh Williamson.

South Carolina—J. Rutledge, Charles Cotesworth Pinckney, Charles Pinckney, Pierce Butler.

Georgia—William Few, Abr. Baldwin.

Attest: William Jackson, Secretary.

Mr. Raymond H. Simpson, President
Board of Land Commissioners
Department of Natural Resources
201 Columbine Building
1845 Sherman Street
Denver, CO 80203

Dear Mr. Simpson:

We have essentially completed the core samples from the State owned land on Section 16. The results of this sampling confirm that the consistency and stability of the ground are sufficient to support the facility planned for this site.

Accordingly, we would like to proceed with the next step which is to make application to Weld County for re-zoning. We have been advised by the Weld County Planning Commission that they would accept an application from us provided it was accompanied with a signed statement from the present land owners authorizing us to represent them in making the application in anticipation of our eventual use of the land.

For this purpose, then, we have prepared a proposed Power of Attorney which is enclosed for your consideration. If the proposed document is acceptable to you, we would appreciate very much your having it signed for the State of Colorado and notarized. In order that our application can be considered at the next meeting of the Weld County Planning Commission, we must file by September 22. If you would call us when the Power of Attorney has been signed, we would like to arrange to have someone pick it up.

In considering our eventual use of the site, we plan to take as little as possible from its present agricultural use, and will make every effort to minimize the impact on the present lessee, Mr. Rieder.

I wish to thank you again for your cooperation and assistance. If there is any further information you require, please let me know.

Sincerely,

Merle V. Gibson
Administrative Contracting Officer

Enclosure

CODE	SURNAME	DATE	CODE	SURNAME	DATE
[illegible]	[illegible]	9/16			

NOAA FORM 61-2

bcc: Assistant Director, Wave Propagation Lab, R45
M. Gibson, 281.00

NWStiewig/kcs/9/16/75

R45x0

eptember 14, 1976

RECEIVED
SEP 16 1976
RSS/R0x1

r. Joseph E. Jarvis, P.E.
irector Building Inspection
ffice of Building Inspection
16 Hospital Road
reeley, Colorado 80631

ear Mr. Jarvis:

irst work on the anchor points and the foundation for the tall tower at
he Joint Meteorological Observing Facility is expected to get underway
n October. Therefore, we need to come full circle in response to your
etter to me advising about building permits. I have taken the position
hat if we can pay for the permits we should and will. From this position
have asked for opinions from NOAA consul.

am advised that public funds cannot be obligated for this purpose.
hroughout our relationship with your County offices in the planning for the
oint Meteorological Observing Facility, we have wished to proceed openly
nd frankly within your guidelines and requirements. I am concerned that
e cannot continue this mode relative to the permits. I welcome any facts
ou have that would provide us a legal alternative.

eanwhile, I am forwarding to you for your information two sets of the
aterial you requested.

incerely yours,

Original signed by
R. T. FROST

obert T. Frost, Assistant Director
ave Propagation Laboratory

ttachments: Plot and Engineering Plans for
JMOF Tower foundation and anchors.

cc: W.W. Stiewig
C. G. Little
F. F. Hall, Jr.

R45x0

ugust 31, 1976

r. Joseph E. Jarvis, P.E.
irector Building Inspection
ffice of Building Inspection
516 Hospital Road
reeley, Colorado 80631

ear Mr. Jarvis:

am writing in reply to your letter of June 16, 1976, concerning a building
ermit for the tower and building planned for our Joint Meteorological Observing
acility to be established near Erie, Colorado.

have checked into the matter, and have been advised that it has long been
he position within the Federal Government that the United States Government is
ot subject to local building laws or ordinances.

he principal installation on this facility will be a tall meteorological tower.
he placing of this tower is not being handled as a construction contract since
t essentially consists of assembly on site of a tower fabricated at the factory.
e obtained expert technical advice for the design of this tower to insure its
afety and integrity. While we feel we are exempt from the requirement for
btaining a building permit, we shall be glad to provide you with copies of
he plans and the other information requested in your June 16 letter. These are
eing prepared and, in accordance with your request, we will furnish you shortly
wo sets of these plans, a plot plan, and a legal description of the property.
he plans at this time will include only the tower as the building plans have
ot been finalized.

et me assure you of our desire to cooperate and work with the county, and if
ou have further questions, please let me know.

incerely,

obert T. Frost, Assistant Director
ave Propagation Laboratory

cc: Procurement, 281.00
N. W. Stiewig, R5x1

Not sent - subs 9/7/76

OFFICE OF BUILDING INSPECTION
356-4000 x412
PHONE (303) ~~953-2212 EXT. 239 & 230~~
1516 HOSPITAL ROAD
GREELEY, COLORADO 80631

WELD COUNTY
COLORADO

June 16, 1976

	Action	Info
Dir.		
Asst. Dir.	✓	
Pat		

6-21-2

Mr. Robert Frost
US Dept. of Commerce
Nat'l Oceonic & Atmospheric Administration
Environmental Research Labs
Boulder, CO 80302

RE: Tower and Buildings

Dear Mr. Frost:

We have seen in the newspapers that a contract has been let for a tower near Erie, Colorado.

Please be advised that we will need the following:

1) A Building Permit based on bid value.

2) Two sets of plans and a plot plan.

3) Legal description of the property.

The above will be required in addition to septic permits for all structures erected on the site.

Sincerely,

Joseph E. Jarvis, P.E.
Director Building Inspection

emm

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

281.00

Date: June 2, 1976

To : Mr. Richard J. Hernandez
U.S. Department of Labor
Employment Standards Administration
1961 Stout Street, Room 15412
Denver, CO 80202

JUN 3 1976
RECEIVED
JUN 3 1976
JUN 3 1976
RSS/R5x1

From: Henry E. Yekel
Henry E. Yekel
Administrative Contracting Officer
National Oceanic and Atmospheric Administration
Contracting Office
Boulder, Colorado 80302

Subj: Solicitation NOAA 4-76; Contract No. 03-6-022-35214
300 meter tower to be erected in the vicinity of Erie, Colorado

In answer to your telephone request of May 27, 1976, this memorandum will supply the reasons Davis-Bacon Act provisions (wage rates) were not required and included in subject solicitation/contract. As you know, the solicitation was advertised and the contract was awarded as a supply type contract subject to the provisions of the Walsh-Healey Act.

The contract in question requires the manufacture and erection of a 300 meter steel tower which will be used for meteorological research. Because it is to be located on leased land, which could require its removal at a later date, a tower which can be dismantled and relocated is necessary. As the tower is not to become a permanent improvement to the leased property and because its method of assembly will permit its removal and relocation, it is considered to be "personal property" and not "construction" within the meaning of the Federal Procurement Regulations (FPR), § 1-18.101-1. The last sentence of the referenced subsection provides in pertinent part:

> "Construction does not include . . . the manufacture, production, furnishing, construction, alteration, repair, processing or assembly of vessels, aircraft or <u>other personal property</u>." (Underscoring added.)

Accordingly, and because the requirement is for personal property, the proper vehicle for its procurement is a supply type contract and not a construction contract.

Indicative of the fact that the procurement is for personal property are the special requirements for the tower itself. First, it must be demountable and second, its every component must be galvanized after fabrication. (Note: It is not possible to galvanize material in the field and the special facilities required are available only at the points of manufacture.) The requirement for a tower which can be dismantled and relocated coupled with the need for galvanization after fabrication places the procurement squarely in the supply category. It is not possible to meet both requirements through the "cut, fit and assemble" operations associated with construction activities.

In order to produce the components comprising the tower, the contractor will be required to:

1. Precisely machine each of the tower components;
2. Weld all flanges, gussets, guy attachments and other required hardware to the tower members;
3. Drill all holes necessary for assembly of the tower;
4. Lap the faces of the flanges (after welding) to assure a precise match; and then
5. Galvanize the completed assembly.

Because of the size and weight of the tower components (e.g., a ten-foot section of a single leg will weigh in excess of 1130 pounds) and because galvanizing is required after all machining, welding and drilling operations are complete, the required processes can be accomplished only in a suitably equipped factory. Therefore, the basic structure of the tower will be obtained through manufacturing processes which are subject to the Walsh-Healey Act.

The guy lines for the tower must be specially manufactured, must be galvanized, must be of the exact lengths required by the tower, and must be fabricated without splices. The diameter of the guys will range from 1-9/16" to 2-3/16" and their lengths will vary from 470 feet to 1265 feet. Because of their size and length and the prohibition against splices, special equipment will be required for their manufacture. Not more than three factories have the special equipment required for production of the guys and their fabrication in the field is impossible. After manufacture,

the guys will be delivered as a finished product ready for attachment to the tower and its anchors. As they will be delivered as a finished product, ready for use by the erector of the tower, they are considered to be manufactured supplies and not construction materials.

The rack and pinion type elevator and instrument carriage which will become a part of the tower are essentially different sized versions of the same device. Except for their racks and guides, which will be installed in sections as a part of the erection effort, the units will be delivered as complete assemblies and not as a collection of their component parts. Even the racks and guides will be cut to size, machined and galvanized at the factory prior to delivery. Again, machining and galvanizing are factory operations which cannot be accomplished in the field. The cost of factory processing of the racks and guides will far exceed the value of the materials and the result of factory operations will be finished products, not construction materials. As with the tower components and guys, factory fabrication and assembly of the elevator and instrument carriage and factory processing of the racks and guides will result in the delivery of finished products ready for final assembly by the tower erector. Final assembly of these end products is not considered to be "construction" subject to the provisions of the Davis-Bacon Act.

Because of its size and weight, the tower will be delivered in kit form and final assembly and erection will take place on site. As the tower is to be demountable, and not a permanent improvement to real property, its manufacture and assembly is analogous to the manufacture and assembly of the crawler-transporter which was the subject of a decision by the Comptroller General (44 Comp. Gen. 498). Accordingly, the contract should provide for the procurement of an item of personal property, i.e., a demountable meteorological tower, and the on-site assembly of the factory-finished products is to be considered as an extension of the manufacturing process.

Site preparation and foundation installation prerequisite to the erection of the tower will be construction work and could be subject to Davis-Bacon provisions. Electrification of the tower may fall into the same category. However, for the reasons which follow, it is not necessary to separate these activities for the purpose of making them subject to Davis-Bacon provisions.

In pertinent part, § 1-18.000 of the FPR provides:

> ". . . Where a contract covers the procurement of both construction and supplies or services, the contract shall include provisions applicable to the predominant part of the work, or shall be divided

> into parts, and include the provisions appropriate for each part, but see § 1-12.402-2."

The relative value of construction operations, when compared to the total cost of the tower, does not merit the separation of the procurement into two parts for the purpose of making both the Walsh-Healey Act and the Davis-Bacon Act applicable. Because the value of construction activities will be insignificant when compared to the total cost of the procurement, the decision not to separate the requirement into two parts, i.e., supplies and construction, is in consonance with the referenced provision of the FPR.

It should be noted that the FPR instruction to "see § 1-12.402-2" is inappropriate because all of Section 1-12.4 has been reserved. However, and when in force, the provisions would have been supportive of the decision to procure the tower by means of a supply-type contract. Specifically, the referenced subsection defined the applicability of the Davis-Bacon Act and, in pertinent part, provided:

> "These requirements are not applicable to contracts for the construction or repair of vessels, aircraft or other kinds of personal property."; and
>
> "These requirements are applicable to the manufacture or fabrication of construction materials and components on the site by a construction contractor or subcontractor under a contract otherwise subject to these requirements, but are not applicable to manufacturing or furnishing of equipment, components or other materials." (Underscoring added.) As previously stated the components of the tower are such as to preclude their manufacture or fabrication at the erection site.

The record supports the determination to purchase the tower as a supply item under the Walsh-Healey Act. For the purpose of administering the "Equal Opportunity" clause, and for other purposes, the solicitation required the identification of subcontractors whose subcontracts would exceed $100,000. The successful bidder did not list any subcontractor for construction but did list the following:

Subcontractor	Amount
U. S. Steel Corporation	$117,232
U. S. Steel Supply	134,350
Heede International	415,600

The U.S. Steel Corporation subcontract will be for the raw materials which will be machined, fabricated and galvanized by the contractor; U.S. Steel Supply will fabricate the special guys previously discussed; Heede International will supply the elevator and instrument carriage required by the contract. When the contractor's manufacturing and fabrication costs are added to the total of $667,182 for the three listed subcontracts, and in the absence of any construction subcontract in excess of $100,000, it is clear that the supply portion of the contract (which is for $1,384,100) is predominant. Therefore, the decision to purchase the tower as a supply type item was proper and in accordance with the provisions of the FPR.

Please contact me at 499-1000, Ext. 3161, if the information provided herein is not adequate for your purposes.

Henry E. Yekel
Administrative Contracting Officer
National Oceanic and Atmospheric Administration

ARTCOM

AUDIO, RADIO, TELEVISION CONSULTING & MAINTENANCE, INC.

P.O. BOX 176
ARVADA, COLO. 80001
PH. 303-979-3225

May 30, 1976

The United States
Department of Commerce
National Oceanic & Atmospheric Administration
325 Broadway,
Boulder, Colo. 80302

Gentleman:

By way of a local Television Newscast, we have just become aware of your intent to construct a new 700' Antenna Tower in the vicinity of Erie, Colo. Structure requiring an expenditure of some 1.5 million dollars.

Having been formed as a Colorado Corporation in May 1969, and being involved in many areas of Consulting, in connection with Microwave, Radio and Television projects in the entire central area of the United States, we would like more definitive information relating to this project for the following reasons.

The purpose of the proposed tower required for services not readily available via natural topography in the immediate Boulder area.

The reason for selection of a site near Erie, adjacent to the already ill used topographic area known as "Table Top Mountain" some distance to the West.

The reason for the selection of a site which is immediately adjacent to the traffic area of the Jefferson County Airport, and in conflict with traffic utilizing runways #29 and #2 for landing and take-off. As well as being in conflict with both the Boulder and Longmont airports.

The total disregard for Environmental features that only add to an area that was ill located and, in fact, ill conceived initially by selecting the Table Top area which is far from the ideal location for any RF or Radio noise free environment.

Why was this site selected, when it has already been necessary to cause the F.C.C. to restrict the construction of new or expanded Broadcast services in the general area of central Colorado, denying the public needed services, because the shortsightedness of the Agency located facilities and services in a geographic area less suited, environmentally, than other locations equally or more easily accessable?

In short, before anymore taxpayer money is expended by your agency, why not consider a phasing out of the services on Table Top in favor of a more suitable RF free environment location. This could but save the taxpayers money, time and inconvenience whether that taxpayer is a Broadcaster, Private Pilot or just plain "John Q" citizen.

Send your GS-13 back to the drafting board, surely he can do better than this. If not, we would like to offer our services.

Sincerely,

Arthur L. Robertson, Pres.

ALR/bz

cc:
Mr. W. L. Armstrong, U.S. Representative
U.S. Department of Environmental Services
F.A.A. Regional Headquarters
F.C.C. Broadcast Division
Radio Station KHOW
KMGH-TV

arch 17, 1976

r. Bruce L. Mazzie
irector of Operations
ational Pilots Association
06 15th Street, N.W.
ashington, D. C. 20005

ear Mr. Mazzie:

hank you for your March 5 letter.

he National Oceanic and Atmospheric Administration does plan to develop
ith the National Center for Atmospheric Research a Joint Meteorological
bserving Facility. The JMOF will be located in Weld County, Colorado,
n nearly a section of land 2 miles east of Erie. The tower to be erected
n this site will be 300 m (985') tall.

n November 28, 1975, the FAA issued a determination this tower will be no
azard to air navigation. This determination became final on January 7,
976.

he primary use of the JMOF will be as a well-instrumented site for the
esting and evaluation of new remote sensing instrumentation so important
o the future of atmospheric research and services in the U. S., including
viation weather and safety.

he meteorological tower will carry instruments at several levels against
hich we can check the performance of our remote sensing systems. A second
se of this unique facility and its remote sensing instrumentation will be
tudies of lower atmosphere processes, including evaporation, precipitation,
urbulence, pollution, etc.

t is possible after 2 or 3 years of experience with the 300 m tower, a
ecision may be reached to extend the tower to 500 m. Such a proposal
ould, of course, be subject to a new determination by FAA, and other public
otice. We recognize that local pilots will wish to be informed immediately
f any plans to increase the height of the tower above 300 m. We certainly
xpect to work closely with pilot groups such as your own, if and when such
lans develop.

Copy sent to East Bolton and
L. Yackovetz, Jr.
3-25-76

appreciate your concern with the development of the JMOF. However, we elieve that the 300 m tower will be a relatively minor inconvenience to ocal pilots, and indeed that there will be some benefit to pilots in mproved access to local meteorological information.

incerely,

riginal signed by:

, Gordon Little, Director
ave Propagation Laboratory

Mr. Mazzie

J. W. Stiewig (R5x1)

Your letter of March 5, 1976 to the National Ocean Survey was forwarded to Boulder, National Oceanic and Atmospheric Administration, for reply. We find that a similar inquiry was made to the Wave Propagation Laboratory in Boulder and answered by Dr. C. Gordon Little (see attached). We have sent a copy of this reply to the National Ocean Survey and to Mr. Earl G. Bolton.

Thank you for your interest.

Att.

mme 3/25/76

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

March 24, 1976

Mr. Bruce L. Mazzie
Director of Operations
National Pilots Association
806 15 th Street, N.W.
Washington, D.C. 20005

Dear Mr. Mazzie:

Your letter of March 5, 1976, addressed to the National Ocean Survey, Riverdale, Maryland, concerning the erection of a tall tower in Weld County, Colorado, has been referred to this office for reply.

A meteorological tower is planned as part of a Joint Meteorological Observing Facility to be operated jointly by NOAA and the National Science Foundation - the latter acting through the National Center for Atmospheric Research. This Facility is presently planned for installation on Section 16, T1N, R68W, approximately two miles east of Erie, Colorado. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro- and mesometeorological processes which characterize the site.

While a 500 meter tower was planned originally, we have now lowered the planned height of the tower to 985' (6165' MSL) in order to meet requirements of the FAA. The tower will be obstruction lighted day and night with high intensity white obstruction lights in accordance with FAA Obstruction Marking and Lighting Circular 70/7460-1D, Chapter 6. Aeronautical Study No. 75-RM-128-OE has been conducted by the FAA resulting in a determination of no hazard to air navigation. This determination became effective January 7, 1976.

Sincerely,

C. Gordon Little, Director
Wave Propagation Laboratory

cc: S. Yachmetz, Jr., Chief
Aeronautical Chart Division, C42
Earl Bolton

Not sent because
CGL had answered on
3/17/76.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

March 24, 1976

Mr. Bruce L. Mazzie
Director, of Operations
National Pilots Association
806 15 th Street, N.W.
Washington, D.C. 20005

Dear Mr. Mazzie:

Your letter of March 5, 1976, addressed to the National Ocean Survey, Riverdale, Maryland, concerning the erection of a tall tower in Weld County, Colorado, has been referred to this office for reply.

A meteorological tower is planned as part of a Joint Meteorological Observing Facility to be operated jointly by NOAA and the National Science Foundation - the latter acting through the National Center for Atmospheric Research. This facility is presently planned for installation on Section 16, T1N, R68W, approximately two miles east of Erie, Colorado. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro- and mesometeorological processes which characterize the site.

While a 500 meter tower was planned originally, we have now lowered the planned height of the tower to 985' (6165' MSL) in order to meet requirements of the FAA. The tower will be obstruction lighted day and night with high intensity white obstruction lights in accordance with FAA Obstruction Marking and Lighting Circular 70/7460-1D, Chapter 6. Aeronautical Study No. 75-RM-128-OE has been conducted by the FAA resulting in a determination of no hazard to air navigation. This determination became effective January 7, 1976.

Sincerely,

J. Gordon Little, Director
Wave Propagation Laboratory

cc: S. Yachmetz, Jr., Chief
Aeronautical Chart Division, C42
Earl C. Bolton

CODE	SURNAME	DATE	CODE	SURNAME	DATE
R5x1	[signature]	3/24			

E COPY

NOAA FORM 61-

ACTION: N.W. STIEWIG

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SURVEY
Rockville, Md. 20852

March 15, 1976

C421/ERD
3/22/7
Office of Director

MAR 22 '76 AM
B ✓ DD ✓ RSS A
OP WM PA
MESA MEAP

Environmental Research Laboratories
National Oceanic & Atmospheric Administration
325 Broadway
Boulder, Colorado 80302

Dear Sirs:

The attached letter from the National Pilots Association concerning a meterological tower proposed for construction near Erie, Colorado, is forwarded for your action.

This tower is identified as that proposed in the Federal Aviation Administrations Aeronautical Study 75-RM-128-08.

RECEIVED
MAR 22 1976
RSS/R5x1

Sincerely,

S. Yachmetz, Jr.
Chief, Aeronautical Chart Division
Office of Aeronautical Charting
and Cartography

Attachment

cc: Bruce L. Mazzie
National Pilots Association
806 15th Street, N.W.
Washington, DC 20005

TION BICENTENNIAL -1976

NOAA

TO C42

National Pilots Association

806 15TH STREET, N.W./WASHINGTON, D.C. 20005/TEL: (202) 737-0773

A Member-Controlled Non-Profit Organization For All Pilots

March 5, 1976

National Oceanic and Atmospheric Administration
National Ocean Survey
Riverdale, Maryland 20840

Gentlemen:

It has been brought to our attention by members of the National Pilots Association in the Denver area, that you are planning to construct a meterological observing facility with a 1,645 foot tower in Weld County, Colorado, two miles East of Erie. In the opinion of the pilots in the Denver area, the construction of this tower will represent a considerable hazard to aircraft traffic in the Denver area.

The proposed tower which would rise 1,645 feet above the ground and proposed to be located about two miles East of Erie and three miles South of Highway 52, would create considerable hazards to operations to and from the Boulder Airport.

1. The proposed tower location and height would seriously compromise the visual flight rules corridor under the North quadrant of the Denver traffic control area.

2. All instrument flight rules departures from Boulder are initially cleared to climb while flying East bound. The proposed tower would create a serious routing problem until aircraft have climbed to a safe altitude that allows reception from navigational aids.

3. Minimum entry altitudes North of Denver would most likely require increasing from 7,000 ft. to 9,000 ft. to provide a safe margin for entering the area. This will create a hardship in particular on lighter aircraft and will most likely increase fuel consumption.

4. Instrument flight rule approaches to airports, in particular, Denver Stapleton, will require revision, reeducation and republication.

Will you please let us know the current disposition of this project?

Sincerely,

Bruce L. Mazzie
Director of Operations

BLM/mt

cc: Earl C. Bolten - Bolton is a private pilot in ITS. (Barbara's husband).

NPA's 21st Year
MORE THAN TWO DECADES OF SERVICE TO GENERAL AVIATION

Stiewig

R45

RECEIVED

FEB 03 1976

RSS/R5x1

Date : January 27, 1976

To : Dr. J. W. Townsend Jr., Deputy Administrator
National Oceanic & Atmospheric Administration

Via : Dr. Wilmot N. Hess, Director
Environmental Research Laboratories

ORIGINAL SIGNED BY WILMOT N. HESS

From : Dr. C. Gordon Little, Director
Wave Propagation Laboratory

Subject: No Negative Impact Statement - JMOF

Attached is the summary of our actions to assess the impact the proposed Joint Meteorological Observing Facility may have on the human environment. Based on the evidence presented, I recommend a declaration that no negative impact will be caused by the proposed activity.

Attachment - JMOF Impact Study

cc: Dr. William Aron, Director
Ecology and Environmental Conservation
National Oceanic & Atmospheric Administration

bcc: N. Stiewig 2-3-76
R. Serafin

REPORT ON THE IMPACT OF A JOINT METEOROLOGICAL OBSERVING FACILITY ON THE HUMAN ENVIRONMENT

I. SUMMARY OF FINDINGS AND CONCLUSIONS

During the period from June 20, 1975 to January 6, 1976 a comprehensive inquiry was made to determine the real and anticipated adverse impact a proposed Joint Meteorological Observing Facility (JMOF) would have on the human environment. Based on the findings of this inquiry, a determination is made that there will be essentially no negative impact on the human environment. It is therefore recommended that the proposed JMOF be developed as a reasonable activity to be undertaken at the site proposed on Section 16 T1N R68W 6th Meridian approximately 2 miles east of Erie, Colorado.

II. PLANS FOR A JOINT METEOROLOGICAL OBSERVING FACILITY

The JMOF was originally proposed as a joint venture of the National Oceanic and Atmospheric Administration (NOAA) and the National Center for Atmospheric Research (NCAR) by staff of NOAA's Wave Propagation Laboratory. Subsequent studies and actions by scientists of NOAA and NCAR developed a JMOF plan with these proposed features and facilities.

A. The Site

The site selected is almost a square mile of fairly flat land now used for dry land wheat farming and pasture. It is situated 15 miles east-northeast from Boulder and lies 2 miles east of the town of Erie. The sections of land surrounding the proposed JMOF site are sparsely populated; there are 12 residences within 500' of the 4 mile perimeter of the site. Much of the site and region has been mined extensively for coal, and surface users risk subsidence. JMOF facilities will be located on unmined geological fault zone strategically situated between three coal mines. Geological coring has proved the sites safe from subsidence.

B. The Meteorological Tower

Sections of galvanized tubular steel will be bolted together to form a 300 m (985') tall guyed tower with a uniform 10' cross section. Sensitive instruments measuring meteorological and environmental parameters will be mounted on the tower at seven levels. A man-rated elevator and a separate instrument carriage will traverse the height of the tower. High intensity white strobe lights to meet FAA requirements will be mounted at three levels on each of the tower's three sides. Louvers in each light and upward tilting of the fixtures to the maximum extent permitted by FAA will screen and greatly diminish the illumination visible from the ground.

C. The Research Lab-Office Building

NCAR will erect when funds are available a 25,000 sq. ft. support building to house 35 to 40 persons.

D. Other On-Site Activities

A variety of remote sensing instruments for measurement or calibration purposes will be located on the ground on piers around the tower, or mounted on truck vans, trailers, or lowboys parked from time to time at various locations on the site.

E. Aerial Activities Over the Site

Tethered balloons and weather balloons will be flown or released from the site. A variety of single and multi-engine aircraft will fly by the upper levels of the tower for measurement and calibration purposes. Aircraft will fly patterns at various heights above the site during atmospheric research experiments.

III. INTERACTIONS WITH THE PUBLIC TO INVITE INQUIRY AND COMMENT

A. The proposed site for the JMOF includes 611 acres of land owned by the Colorado State Land Board, and Roy H. and Beverley Carlson. These property owners have been supportive of lease/purchase option plans. The land is available without adverse actions. The lessee of agricultural rights has been agreeable to all discussions and proposals as they would affect his rights.

B. All residents living within 500' of the perimeter of the JMOF site were personally contacted by telephone and/or sent a personal letter. These letters described the proposed activity, and offered a visit by a spokesperson from NOAA or NCAR to discuss the proposal with them. The letters included first notice of a public meeting which was to be held at the Erie High School.

> Summary: Comments from land owners and residents proved to be supportive or neutral. The proposal is not controversial in the neighborhood.

C. On June 20, 1975 the Federal Aviation Administration advertised for public response a notice for proposed construction of a 300 m (985') tall tower at the JMOF site near Erie Colorado. When the review period closed on July 19, 1975, there were no written comments from general aviation owners or operators. On November 28, 1975 the FAA issued a Determination of No Hazard to Air Navigation for the proposed erection of a 300 m (985') tall tower at the JMOF site. This determination became final on January 7, 1976.

> Summary: Some individual Boulder area pilots expressed orally displeasure at the location and height of the tower. The Boulder County Planning Commission did make unfavorable comment to the referral from Weld County relative to the JMOF rezoning application. These comments, made without benefit of NOAA-NCAR presentations, were largely limited to concerns expressed by general aviation interests. No protests have been made by any authorities having jurisdiction; we understand that the FAA determination for the 300 m (985') tower was not formally protested by any public or private group.

D. Extensive contacts have been made with private persons, citizen groups, public officials, and the public media. The entire Boulder, Denver, Greeley, Longmont region has repeatedly been made aware of the JMOF plan. A few individuals or households have protested or made negative comment about specific concerns, such as their view of the proposed tower, the location on the site of the NCAR building, and the tower lights. In balance the overall reaction has been one of interest and support. Attachments A through E identify the contacts made to determine public reaction to the JMOF proposal.

E. On January 6 the Weld County Planning Commission unanimously recommended to the Weld County Commissioners approval of the request to rezone the proposed JMOF site to planned Scientific Unit Development.

January 28, 1976

WELD COUNTY
COLORADO
WELD COUNTY PLANNING COMMISSION

GREELEY, COLO.
1516 Hospital Road

Action Info
Dir.
t. Dir.
1-13-11

January 12, 1976

Robert Frost
U.S. Dept. of Commerce
National Oceanic and Atmospheric Administration
Environmental Research Laboratories
Boulder, Colorado 80302

Dear Mr. Frost:

I am forwarding to you the following enclosures which you requested:

1. The Weld County Planning Commission's Resolution of Recommendation to the Board of County Commissioners;
2. Staff comments;
3. Letters we received from surrounding property owners;
4. Comments submitted by Martha Wiesner; and
5. A copy of the Development Standards which were somewhat revised by Anne Moore.

Additionally, our office needs to receive the application fee. If you have any questions, please do not hesitate to contact our office.

Respectfully,

Ken McWilliams

Ken McWilliams

jsm

DEVELOPMENT STANDARDS

1. The Joint Meteorological Observing Facility (JMOF) shall be a 611 acre field site owned by the Federal Government for the measurement of atmospheric science parameters, and the development, testing, demonstration and calibration of new remote sensing instruments.

2. Permitted uses shall include:

   A. A 985' (300 m) guyed tower with meteorological instrumentation mounted at seven levels and lighted according to F.A.A. recommendations. The tower will display continuously operating white strobe lights at three levels (100 m, 200 m, 300 m) on each side of the tower. An elevator and carriage will be within structural guideways, and instrument booms will project ten to twelve feet from the tower at six levels.

   B. A 25,000 square foot research laboratory and office building to house 30 - 40 staff members of the National Center for Atmospheric Research. A site development plan shall be submitted for recommendation by the Planning Commission and for approval by the Board of County Commissioners. Such plan shall include details of construction specifications and location, traffic circulation and parking, utilities, fire protection, drainage, landscaping, etc. No development or construction shall commence until said plan is approved by the Board and appropriate permits secured.

   C. Portable office - laboratory modules to be used prior to and during construction of the permanent NCAR building. Such modules shall meet all applicable standards of the Weld County Building Inspection Department (Uniform Building Code), the Weld County Health Department, and the Dacono Fire Protection District. The modules shall be removed within 90 days of issuance of a Certificate of Occupancy for the NCAR structure.

   D. Instruments and measurement systems located on the ground and around the perimeter of the tower and mounted on vehicles; stabilized parking surfaces with tie downs and electrical connections for such vehicles.

   E. Weather balloon launchings and tethered balloons; occasional aircraft fly-bys for research and instrument calibration purposes.

   F. Dryland cultivation and pasture.

   G. Seeding of dryland grasses within a 1200 foot radius of the tower to obtain a uniform ground cover.

   H. An eight-foot high security fence surrounding the tower base to prevent unauthorized access to the tower.

   I. An unlighted, painted, wooden sign, six feet by four feet, installed adjacent to the access road off County Road 8 leading to the office-lab modules. Detailed plans for any other signs shall be submitted to the Planning Commission for recommendation and to the Board of County Commissioners for approval prior to erection.

J. A stabilized parking area adjacent to the office-lab for approximately twelve vehicles. Additional parking area will be part of the site development plan for the NCAR area.

3. Four or five persons will work daily at the JMOF until the NCAR structure is completed. Additional staff and guests will be on site intermittantly.

4. Building permits shall be secured prior to construction, and all inspections required by the Building Inspection Department shall be called for.

5. Temporary and permanent structures shall have a minimum setback of 75 feet from any existing road right-of-way or from any proposed right-of-way included in the adopted Weld County Thoroughfare Plan.

6. Weed and dust control shall be practiced.

7. All county road access points shall be approved as to location and construction by the County Engineer.

8. Landscaping shall be designed and proposed as part of the NCAR site development plan in 2B above.

9. Utilities shall be installed underground.

1-6-76

Hearing before Weld County Planning Commission

1. Apparent air strip in close proximity to proposed site not in conformance with Weld County zoning requirements
2. What type of aircraft will be employed in fly-bys. Ans. NCAR aircraft (4) electra, sabreliner, 2 twin engine aircraft.
3. At what height? Ans. for calibration @ height of tower, for research, considerably higher
4. Will you fly the Electra that low? Probably not, because of the noise level involved.

Marsten Weiser - Boulder - letter received by staff this date.

aesthetics

air space impact

gen. aviation - eff int.

obst. near urban area

concerns about location being dangerous being near to I-25

not convinced of need

SUD be limited to approved plan

Co. eng. and study nec. to rd 8 accel decel lane

Any addition to height must have SUD

Dacono fire protection dist. recommendation be complied with

Steve Hamilton – adjacent property owner – adamantly rejection until County Commissioners make a decision on proposed air park proposal.

Loren Cyrus – comments in favor of facility – wants it @ 500 meters

Nice.

R. W. Hess

REC'D RSS/ERL '75 DEC 4

12/4/4

RECEIVED
DEC 04 1975
RSS/R5x1

December 2, 1975

To: Dr. C. Gordon Little, ERL

From: Richard L. Lehman - EE

Subj: Joint NOAA-NCAR Meteorological Observing Facility

Per our telephone conversation yesterday on subject Facility and the 300 m. tower, I am happy to send a copy of the most recent CEQ Guidelines (August 1973) for the preparation of environmental impact statements, and an example of a recent NOAA environmental impact statement (EIS): Florida Area Cumulative Experiment (FACE) of 1975.

Regarding the CEQ Guidelines, section 1500.8 covers the specifics to be covered in an EIS. For a project such as your present one, preparation of an EIS need not be a formidable task.

We will be glad to help you in any way as you approach the decision of whether or not, in your judgment, an EIS should be prepared.

cc: Dr. W. Hess

12.4.75

meeting 12-10-75

to get ① of land covering tower radius so that dry-land [illegible] could be planted this spring. 200'

need to get release from Rieder so that we can then lease [illegible] State.

negotiations c̄ Carlson for lease of all his land.

[illegible] for March 1 beginning lease date

[illegible] final decision on approval by FAA for 300 m Tower 1-7-76

[illegible]ning request will go to planning commission, Weld County 1-6-76.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
Rocky Mountain Region
Air Traffic Division
Park Hill Station, P. O. Box 7213
Denver, Colorado 80207

IN REPLY REFER TO
AERONAUTICAL STUDY
NO. 75-RM-128-OE

DETERMINATION OF NO HAZARD TO AIR NAVIGATION

SPONSOR	U. S. Department of Commerce National Oceanic & Atmospheric Administration 325 Broadway Boulder, CO 80302	CONSTRUCTION LOCATION PLACE NAME Erie, Colorado	
		LATITUDE 40°02'54"	LONGITUDE 105°00'12"
CONSTRUCTION PROPOSED	DESCRIPTION Guyed Meteorological Tower	HEIGHT (IN FEET) ABOVE GROUND 985'	ABOVE MSL 6165'

An aeronautical study of the proposed construction described above has been completed under the provisions of Part 77 of the Federal Aviation Regulations. Based on the study it is found that the construction would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the construction would not be a hazard to air navigation provided the following conditions are met:

Conditions: 1. The structure is obstruction lighted day and night with high intensity white obstruction lights in accordance with FAA Obstruction Marking and Lighting Advisory Circular 70/7460-1D, Chapter 6.

Supplemental notice of construction is required any time the project is abandoned (use the enclosed FAA form), or

(X) At least 48 hours before the start of construction (use the enclosed FAA form).
(X) Within five days after the construction reaches its greatest height (use the enclosed FAA form).
( ) Not required.

This determination expires on July 7, 1977 unless:
(a) extended, revised or terminated by the issuing office;
(b) the construction is subject to the licensing authority of the Federal Communications Commission and an application for a construction permit is made to the FCC on or before the above expiration date. In such case the determination expires on the date prescribed by the FCC for completion of construction, or on the date the FCC denies the application.

This determination is subject to review if an interested party files a petition on or before December 28, 1975 In the event a petition for review is filed, it should be submitted in triplicate to the Chief, Airspace Obstruction and Airports Branch, AT-240, Federal Aviation Administration, Washington, D.C. 20590, and contain a full statement of the basis upon which it is made.

This determination becomes final on January 7, 1976 unless a petition for review is timely filed, in which case the determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review.

An account of the study findings, aeronautical objections, if any, registered with the FAA during the study, and the basis for the FAA's decision in this matter will be found on the following page(s).

If the structure is subject to the licensing authority of the FCC, a copy of this determination will be sent to that Agency.

L. R. Robison

SIGNED L. R. ROBISON TITLE Chief, Air Traffic Division

ISSUED IN Aurora, Colorado ON November 28, 1975

FAA Form 7460-9 (4-71)

GPO 910-226

1/5/76 - Orig to Frost, copy to Stiewig

On June 20, 1975, the FAA circularized a Public Notice soliciting written comments in regard to the effect of a proposed 985' AGL/6165' AMSL tower, to be located near Erie, Colorado, on the safe and efficient use of airspace by aircraft.

In response thereto, objections were received from the Aircraft Owners and Pilots Association (AOPA) and the Jefferson County Colorado Airport Manager. Basically, the AOPA and the airport manager contended that the proposed structure would have an adverse effect on visual flight rule operations and pose a hazard for air navigation.

The aeronautical study disclosed, as proposed, the meterological tower would exceed the obstruction standards of the Federal Aviation Regulations Part 77, as follows:

> Section 77.23(a)(1) by 485 feet, that height above 500 feet above ground level. (AGL)
>
> Section 77.23(a)(3) in that it would raise the minimum radar vectoring altitude (MVA) from 6700 feet to 7200 feet mean sea level (MSL) within a three nautical mile radius of the proposed structure.

The study also disclosed:

1. That raising the minimum radar vectoring altitude from 6,700 feet to 7,200 feet (MSL) within a three nautical mile radius of the proposed structure would have no substantial adverse effect on instrument flight rule (IFR) operations at the Stapleton International or Jefferson County airports. Aircraft are normally vectored no lower than 7,000 feet MSL in the vicinity of the proposed site. Therefore, a change in the minimum radar vectoring altitude within a three nautical mile radius of the structure can be accomplished without having a substantial adverse effect on IFR aeronautical operations.

   The proposed 985' AGL/6165' AMSL meterological tower would not require an increase in any other instrument minimum flight altitude, minimum obstacle clearance altitude, altitudes associated with over-lying Federal airways or change any instrument approach procedures at Stapleton International or Jefferson County Airports.

2. The proposed structure would be located approximately 1-1/2 statute miles west of Interstate 25 and would

penetrate airspace occasionally used by pilots conducting VFR flight beneath low ceiling conditions using Interstate 25 as a visual navigational reference between Denver, Colorado and Cheyenne, Wyoming.

The installation of high intensity white obstruction lights on the proposed structure would assure its conspicuity, thus enabling pilots to observe and avoid the structure.

Based on the foregoing, the FAA has concluded that existing procedures can be modified to accomodate a 985' AGL/6165' AMSL structure with no substantial adverse effect on the safe and efficient use of airspace.

November 25, 1975

FOR THE FILES

I received a telephone call from John Neale on November 24 advising that the military had withdrawn all interests in the Elizabeth site and that, therefore, he felt he could no longer hold the site for us. Apparently, first option on the site will go to the County and one of the counties planned uses is for a land fill. It seems quite likely that the County will experience considerable difficulty in obtaining the necessary approvals for this type of use and there is, therefore, a distinct possibility that the site may again become available. Neale indicated that he would advise us before the site was put on the market for sale which would be the next step if it would not retained by the County. He also indicated that there is always a possibility of another site being available for which a trade could be arranged.

It was agreed that Neale would proceed with the next step on the Elizabeth site and that when we were in a position to initiate our exchange action, which will probably be in February after the President's budget has gone to Congress and at which time we could request authorization from the Appropriations Committees of each house of Congress to initiate the exchange action, I would then get in touch with Neale to ascertain if a suitable site were available which we could consider to be a trade with the State Land Commission.

Advised Bob Frost of this action on November 25.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

R45

10-24-12
Office of Dir.

DL DDLE OP
ESS
Rec'd 10-29-75

RECEIVED
OCT 29 1975
RSS/R5x1

Date : October 22, 1975

To : Dr. Wilmot N. Hess, Director
Environmental Research Laboratories

From : Dr. C. G. Little, Director
Wave Propagation Laboratory

C. Gordon Little

Subject: JMOF Tower

As you know, the FAA has indicated orally that any tower higher than about 265 m at the Erie site would represent an aviation hazard. This forced us to analyze again the validity of the Erie site; my reanalysis was completed on October 2 and presented to NCAR management on that date. We discussed the siting problem again yesterday, after my analysis had been reviewed by several NCAR staff, and after learning that ITS could only make the Platteville site available on a shared basis.

Drs, Bretherton and Firor have now accepted my recommendation that we should immediately proceed with the erection of a 265 m tower at Erie with the intent of working with the FAA to increase the height to 500 m as soon as funds are available. We all recognize that this site, especially if limited to 265 m, is not perfect; however, we are agreed that it represents the best compromise available to us.

I am therefore notifying FAA of our decision to stick with the Erie site. We plan to complete the bid process on the tower procurement as soon as we have a written ruling from FAA that 265 m would not represent a hazard. Simultaneously, we will work with NCAR to develop a JMOF agreement for submission to NSF by NOAA management. I believe that this agreement should stress as strongly as possible the need for NSF/NCAR to give high priority to obtaining funds to erect the FoF building at the JMOF site, hopefully in FY 78.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

R45

October 23, 1975

Mr. John H. McGhee
Federal Aviation Administration
Air Traffic Division
Rocky Mountain Region
P. O. Box 7213
Parkhill Station
Denver, CO 80207

Dear Mr. McGhee:

Following our meeting with you and your colleagues on September 19, we have carefully reviewed possible alternative sites for the proposed JMOF meteorological tower. Many scores of manhours have gone into these new studies, which have included such factors as the capabilities of each site for atmospheric research, for the development of atmospheric instrumentation, for mutual cooperation between NCAR and NOAA, as well as the tangible and intangible costs associated with travel to the site.

From these analyses, the two agencies have again concluded that the Erie site, even if limited to tower heights of not more than 875 ft. above the 5174 ft. MSL site, would meet our needs better than all other sites we have identified, while simultaneously keeping it as far as practicable from local airports.

Therefore, we request that FAA/Denver complete its determination relative to our original proposal for a 300 m height tower at the Erie site. We understand from our discussions with you that the FAA is likely to advise that any tower exceeding 6049 feet above mean sea level would represent a hazard to aviation. If so, it is our present plan to modify our 300 m bid specifications accordingly.

We look forward to the prospect of using the Erie site and its meteorological tower on FAA projects such as our wind shear project, and very much appreciate your help and advice on this matter.

Sincerely,

C Gordon Little

C. Gordon Little, Director
Wave Propagation Laboratory

R45

RECEIVED
OCT 16 1975
RSS/R5x1

October 15, 1975

Honorable William Hilsmeier
State Representative
39 James Circle
Longmont, Colorado 80305

Dear Bill:

Bill Hess asked that I write you about the possible effects of the proposed Joint Meteorological Observing Facility on housing and water in the Erie area.

If the Erie site is selected there would be relatively few people assigned to the site until the NCAR permanent lab-office building is erected. At that time thirty-five to forty persons would work at the observatory. A survey already conducted suggests that only a few employees (2 to 3) might relocate their residences to the Erie area. One reason for so few possible moves is the accessibility to Erie from the Boulder region where these people now live.

Relative to the water, the JMOF at the site would be serviced by the Left Hand Water Supply of Niwot. Sanitary facilities would be created on site to meet Weld County codes and state requirements.

I hope the above comments will reassure you the proposed JMOF will not compete for scarce water resources with Erie residents. The effect on the Erie schools should also be minimal.

If I can provide you with other information about the JMOF you or your constituents are concerned about, please let me know.

Best regards,

Robert T. Frost
NOAA JMOF Spokesperson

cc: W. N. Hess
bcc: Stiewig 10-20-75
Medrud
Little

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

October 10, 1975

FOR THE RECORD

Nate Stiewig

I discussed the potential exchange for land for the JMOF cite with John Neil of GSA in the light of the more restrictive policies of GSA regarding exchanges and which he had forwarded to me on October 1.

I felt that we could cover all of the requirements with the possible exception of the second part of item 3. I felt the first part of item 3 could be covered by the obvious fact that thru an exchange we would avoid the cost which would be involved to purchase outright portion of land which would be acquired thru that exchange. Neil indicated that the advantage would have to be over and above whatever might be involved in an actual purchase. By that he meant that there must be an advantage more than just the savings that might result thru not having to purchase the land which would be acquired thru the exchange. I told him I was not sure that we could cover that exception; but possibly thru the exchange mechanism it might be possible to negotiate a transaction with Dr. Carlson; in the absence of an exchange a formal condemnation may be required to acquire his land. Neil felt this commission might very well qualify under this item and suggested that we go ahead and try to write up something and he could try it with his headquarters.

I then explained the problems we are having with item 1, i.e., obtaining approval of the committees of Congress. I have been informed that we would not be able to seek this approval before our fiscal year 1977 budget goes to Congress. Thus, we would not be able to seek this approval until February or March 1976. He indicated that the Marines have expressed an interest in the Elizabeth cite. He was not sure that he could hold the cite for us until February or March1 but the interest of the Marines does help in that it relieves some of the pressure on him to proceed to declare this cite surplus. He now has an expressed interest from two Federal agencies. If the Marines do make a formal request for the cite, they will have priority over our exchange proposal and will tie up the cite until they make a final decision whether or not to take it. The Marines will have priority because (1) it is a direct use rather than an exchange and (2) because the land was originally held by the military and they, therefore, would have the right to withdraw it.

Neil did agree to hold on a little longer -- he felt possibly he could hold on until next Spring, but definitely no longer then that. He expressed concern about procuring the cite and I reaffirmed our offer to help out with any costs associated with this.

(iv) The top of the ladder must be placed with the two rails supported, unless equipped with a single support attachment. Such an attachment should be substantial and large enough to support the ladder under load.

(v) When ascending or descending, the climber must face the ladder.

(vi) Ladders must not be tied or fastened together to provide longer sections. They must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.

(vii) Ladders should not be used as a brace, skid, guy or gin pole, gangway, or for other uses than that for which they were intended, unless specifically recommended for use by the manufacturer.

(viii) Users are cautioned to take proper safety measures when metal ladders are used in areas containing electric circuits to prevent short circuits or electrical shock.

§ 1910.27 Fixed ladders.

(a) *Design requirements*—(1) *Design considerations.* All ladders, appurtenances, and fastenings shall be designed to meet the following load requirements:

(i) The minimum design live load shall be a single concentrated load of 200 pounds.

(ii) The number and position of additional concentrated live-load units of 200 pounds each as determined from anticipated usage of the ladder shall be considered in the design.

(iii) The live loads imposed by persons occupying the ladder shall be considered to be concentrated at such points as will cause the maximum stress in the structural member being considered.

(iv) The weight of the ladder and attached appurtenances together with the live load shall be considered in the design of rails and fastenings.

(2) *Design stresses.* Design stresses for wood components of ladders shall not exceed those specified in § 1910.25. All wood parts of fixed ladders shall meet the requirements of § 1910.25(b).

For fixed ladders consisting of wood side rails and wood rungs or cleats, used at a pitch in the range 75 degrees to 90 degrees, and intended for use by no more than one person per section, single ladders as described in § 1910.25(c)(3)(ii) are acceptable.

(b) *Specific features*—(1) *Rungs and cleats.* (i) All rungs shall have a minimum diameter of three-fourths inch for metal ladders, except as covered in subparagraph (7)(i) of this paragraph, and a minimum diameter of 1⅛ inches for wood ladders.

(ii) The distance between rungs, cleats, and steps shall not exceed 12 inches and shall be uniform throughout the length of the ladder.

(iii) The minimum clear length of rungs or cleats shall be 16 inches.

(iv) Rungs, cleats, and steps shall be free of splinters, sharp edges, burrs, or projections which may be a hazard.

(v) The rungs of an individual-rung ladder shall be so designed that the foot cannot slide off the end. A suggested design is shown in figure D–1.

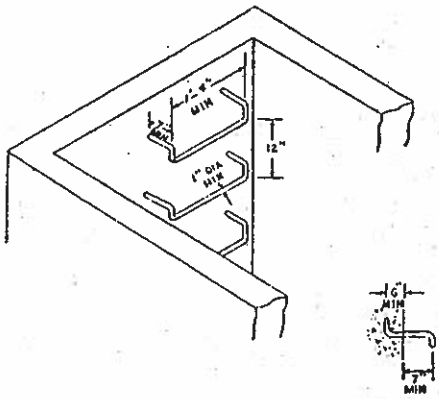


FIGURE D–1.—Suggested design for rungs on individual-rung ladders.

(2) *Side rails.* Side rails which might be used as a climbing aid shall be of such cross sections as to afford adequate gripping surface without sharp edges, splinters, or burrs.

(3) *Fastenings.* Fastenings shall be an integral part of fixed ladder design.

(4) *Splices.* All splices made by whatever means shall meet design requirements as noted in paragraph (a) of this section. All splices and connections shall have smooth transition with original members and with no sharp or extensive projections.

(5) *Electrolytic action.* Adequate means shall be employed to protect dissimilar metals from electrolytic action when such metals are joined.

(6) *Welding.* All welding shall be in accordance with the "Code for Welding in Building Construction" (AWS D1.0–1966).

(7) *Protection from deterioration.* (i) Metal ladders and appurtenances shall be painted or otherwise treated to resist corrosion and rusting when location demands. Ladders formed by individual metal rungs imbedded in concrete, which serve as access to pits and to other areas under floors, are frequently located in an atmosphere that causes corrosion and rusting. To increase rung life in such atmosphere, individual metal rungs shall have a minimum diameter of 1 inch or shall be painted or otherwise treated to resist corrosion and rusting.

(ii) Wood ladders, when used under conditions where decay may occur, shall be treated with a nonirritating preservative, and the details shall be such as to prevent or minimize the accumulation of water on wood parts.

(iii) When different types of materials are used in the construction of a ladder, the materials used shall be so treated as to have no deleterious effect one upon the other.

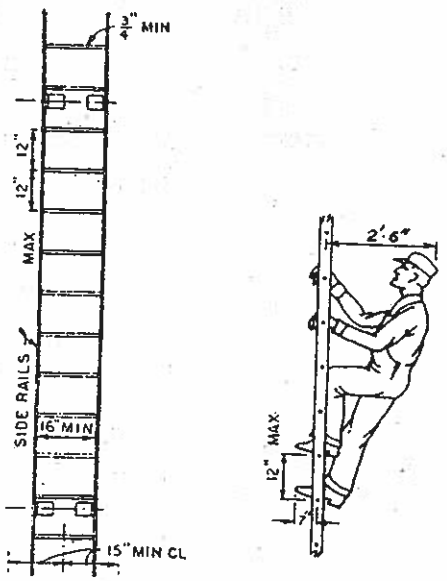
(c) *Clearance*—(1) *Climbing side.* On fixed ladders, the perpendicular distance from the centerline of the rungs to the nearest permanent object on the climbing side of the ladder shall be 36 inches for a pitch of 76 degrees, and 30 inches for a pitch of 90 degrees (fig. D–2 of this section), with minimum clearances for intermediate pitches varying between these two limits in proportion to the slope, except as provided in subparagraphs (3) and (5) of this paragraph.

(2) *Ladders without cages or wells.* A clear width of at least 15 inches shall be provided each way from the centerline of the ladder in the climbing space, except when cages or wells are necessary.

(3) *Ladders with cages or baskets.* Ladders equipped with cage or basket are excepted from the provisions of subparagraphs (1) and (2) of this paragraph, but shall conform to the provisions of paragraph (d)(1)(v) of this section. Fixed ladders in smooth-walled wells are excepted from the provisions of subparagraph (1) of this paragraph, but shall conform to the provisions of paragraph (d)(1)(vi) of this section.

(4) *Clearance in back of ladder.* The distance from the centerline of rungs, cleats, or steps to the nearest permanent object in back of the ladder shall be not less than 7 inches, except that when unavoidable obstructions are encountered, minimum clearances as shown in figure D–3 shall be provided.

(5) *Clearance in back of grab bar.* The distance from the centerline of the grab bar to the nearest permanent ob-



RAIL LADDER WITH BAR STEEL RAILS AND ROUND STEEL RUNGS

FIG. D-2

Minimum Ladder Clearances

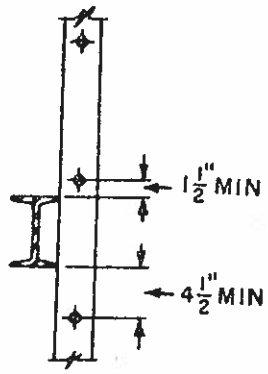


FIG. D-3

Clearance for Unavoidable Obstruction at Rear of Fixed Ladder

ject in back of the grab bars shall be not less than 4 inches. Grab bars shall not protrude on the climbing side beyond the rungs of the ladder which they serve.

(6) *Step-across distance.* The step-across distance from the nearest edge of ladder to the nearest edge of equipment or structure shall be not more than 12 inches, or less than 2½ inches (fig. D–4).

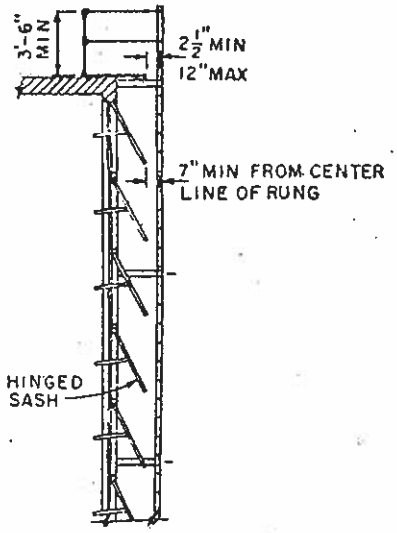
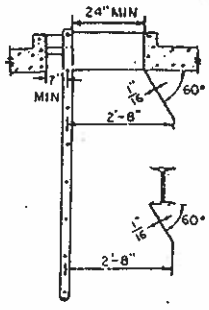


Fig. D–4
Ladder Far from Wall

(7) *Hatch cover.* Counterweighted hatch covers shall open a minimum of 60 degrees from the horizontal. The distance from the centerline of rungs or cleats to the edge of the hatch opening on the climbing side shall be not less than 24 inches for offset wells or 30 inches for straight wells. There shall be no protruding potential hazards within 24 inches of the centerline of rungs or cleats; any such hazards within 30 inches of the centerline of the rungs or cleats shall be fitted with deflector plates placed at an angle of 60 degrees from the horizontal as indicated in figure D–5.



Deflector Plates for Head Hazards

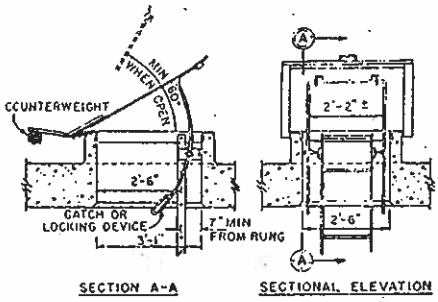
Fig. D–5

The relationship of a fixed ladder to an acceptable counterweighted hatch cover is illustrated in figure D–6.

(d) *Special requirements*—(1) *Cages or wells.* (i) Cages or wells (except on chimney ladders) shall be built, as shown on the applicable drawings, covered in detail in figures D–7, D–8, and D–9, or of equivalent construction.

(ii) Cages or wells (except as provided in subparagraph (5) of this paragraph) conforming to the dimensions shown in figures D–7, D–8, and D–9 shall be provided on ladders of more than 20 feet to a maximum unbroken length of 30 feet.

(iii) Cages shall extend a minimum of 42 inches above the top of landing, unless other acceptable protection is provided.

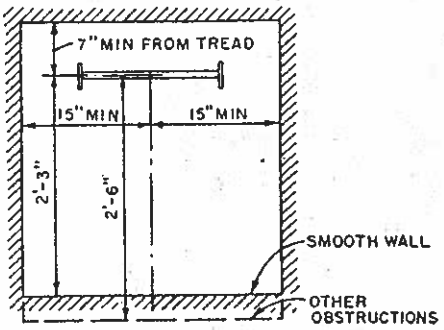


Relationship of Fixed Ladder to a Safe Access Hatch

Fig. D–6

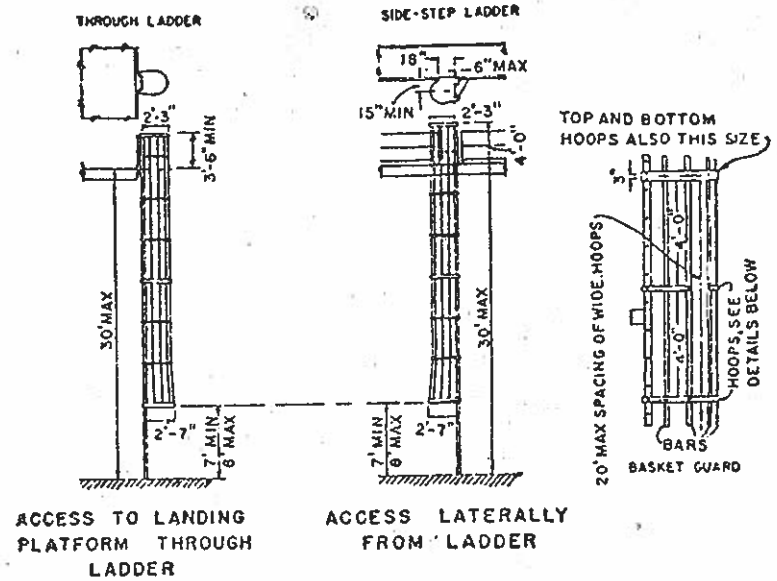
(iv) Cages shall extend down the ladder to a point not less than 7 feet nor more than 8 feet above the base of the ladder, with bottom flared not less than 4 inches, or portion of cage opposite ladder shall be carried to the base.

(v) Cages shall not extend less than 27 nor more than 28 inches from the centerline of the rungs of the ladder. Cage shall not be less than 27 inches in width. The inside shall be clear of projections. Vertical bars shall be located at a maximum spacing of 40 degrees around the circumference of the cage; this will give a maximum spacing of approximately 9½ inches, center to center.



Clearance Diagram for Fixed Ladder in Well

Figure D–7



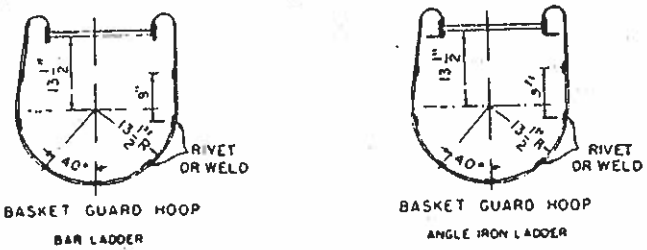


Fig. D–8
Cages for Ladders More Than 20 Feet High

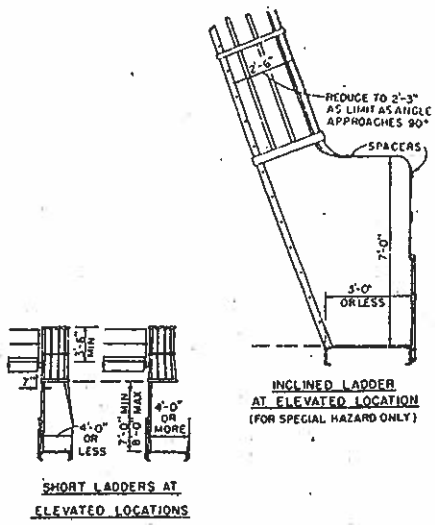


FIGURE D-9.—Cages—Special applications.

(vi) Ladder wells shall have a clear width of at least 15 inches measured each way from the centerline of the ladder. Smooth-walled wells shall be a minimum of 27 inches from the centerline of rungs to the well wall on the climbing side of the ladder. Where other obstructions on the climbing side of the ladder exist, there shall be a minimum of 30 inches from the centerline of the rungs.

(2) *Landing platforms.* When ladders are used to ascend to heights exceeding 20 feet (except on chimneys), landing platforms shall be provided for each 30 feet of height or fraction thereof, except that, where no cage, well, or ladder safety device is provided, landing platforms shall be provided for each 20 feet of height or fraction thereof. Each ladder section shall be offset from adjacent sections. Where installation conditions (even for a short, unbroken length) require that adjacent sections be offset, landing platforms shall be provided at each offset.

(i) Where a man has to step a distance greater than 12 inches from the centerline of the rung of a ladder to the nearest edge of structure or equipment, a landing platform shall be provided. The minimum step-across distance shall be 2½ inches.

(ii) All landing platforms shall be equipped with standard railings and toeboards, so arranged as to give safe access to the ladder. Platforms shall be not less than 24 inches in width and 30 inches in length.

(iii) One rung of any section of ladder shall be located at the level of the landing laterally served by the ladder. Where access to the landing is through the ladder, the same rung spacing as used on the ladder shall be used from the landing platform to the first rung below the landing.

(3) *Ladder extensions.* The side rails of through or side-step ladder extensions shall extend 3½ feet above parapets and landings. For through ladder extensions, the rungs shall be omitted from the extension and shall have not less than 18 nor more than 24 inches clearance between rails. For side-step or offset fixed ladder sections, at landings, the side rails and rungs shall be carried to the next regular rung beyond or above the 3½ feet minimum (fig. D–10).

(4) *Grab bars.* Grab bars shall be spaced by a continuation of the rung spacing when they are located in the horizontal position. Vertical grab bars shall have the same spacing as the ladder side rails. Grab-bar diameters shall be

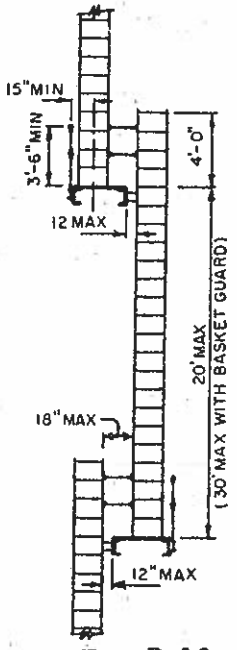


FIG. D–10

Offset Fixed Ladder Sections

the equivalent of the round-rung diameters.

(5) *Ladder safety devices.* Ladder safety devices may be used on tower, water tank, and chimney ladders over 20 feet in unbroken length in lieu of cage protection. No landing platform is required in these cases. All ladder safety devices such as those that incorporate lifebelts, friction brakes, and sliding attachments shall meet the design requirements of the ladders which they serve.

(c) *Pitch.*—(1) *Preferred pitch.* The preferred pitch of fixed ladders shall be considered to come in the range of 75 degrees and 90 degrees with the horizontal (fig. D–11).

(2) *Substandard pitch.* Fixed ladders shall be considered as substandard if they are installed within the substandard pitch range of 60 and 75 degrees with the horizontal. Substandard fixed ladders are permitted only where it is found necessary to meet conditions of installation. This substandard pitch range shall be considered as a critical range to be avoided, if possible.

(3) *Scope of coverage in this section.* This section covers only fixed ladders within the pitch range of 60 degrees and 90 degrees with the horizontal.

(4) *Pitch greater than 90 degrees.* Ladders having a pitch in excess of 90

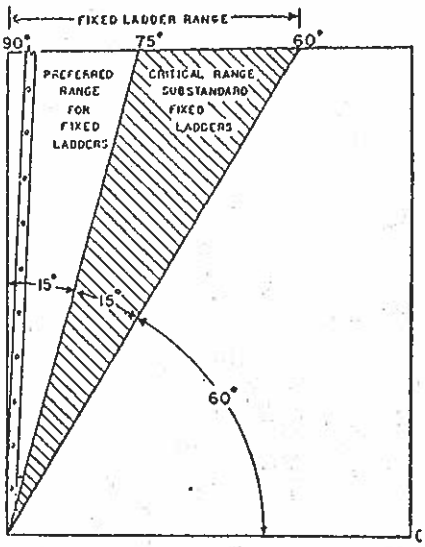


FIG. D–11

Pitch of Fixed Ladders

degrees with the horizontal ar prohibited.

(f) *Maintenance.* All ladders shall b maintained in a safe condition. All lad ders shall be inspected regularly, wit the intervals between inspections bein determined by use and exposure.

§ 1910.28 Safety requirements for scaf folding.

(a) *General requirements for all scaf folds.* (1) Scaffolds shall be furnishe and erected in accordance with thi standard for persons engaged in wor that cannot be done safely from th ground or from solid construction, ex cept that ladders used for such work shal conform to § 1910.25 and § 1910.26.

(2) The footing or anchorage for scaf folds shall be sound, rigid, and capabl of carrying the maximum intended loa without settling or displacement. Un stable objects such as barrels, boxes, loos brick, or concrete blocks shall not b used to support scaffolds or planks.

(3) Guardrails and toeboards shall b installed on all open sides and ends o platforms more than 10 feet above th ground or floor except:

(i) Scaffolding wholly within the in terior of a building and covering the en tire floor area of any room therein an not having any side exposed to a hoist way, elevator shaft, stairwell, or othe floor openings, and

(ii) Needle-beam scaffolds and float in use by structural iron workers.

Guardrails should all be 2 x 4 inche or the equivalent, installed no less tha 36 inches or not more than 42 inche high, with a midrail, when required, o 1- x 4-inch lumber or equivalent. Sup ports should be at intervals not to exceed ten feet. Toeboards shall be a minimun of 4 inches in height.

(4) Scaffolds and their component shall be capable of supporting withou failure at least four times the maximun intended load.

Nate Stiering
IMOF
TOWER

R45

RECEIVED
OCT 0 8 1975
RSS/R5x1

October 5, 1975

Honorable Floyd K. Haskell
United States Senator
Denver Federal Building
1961 Stout Street
Denver, Colorado 80202

ATTN: Fay Strauss

Dear Senator Haskell:

We appreciate receiving from you the statement of protest from the residents whose property joins the proposed site for a Joint Meteorological Observing Facility near Erie, Colorado. The public meeting held at Erie, on September 18, was intended to inform people (including the persons signing the protest sent to your office) in advance of any commitments, of plans that would affect their environment. This was done in order that any objections could be made known and means of accommodations sought, where at all possible.

As you are aware, land on which permanent building construction is to be undertaken by the government must be owned by the government. From this standpoint, Site A for the proposed NCAR building has been given first preference in our planning because Mr. Ray Carlson, the land owner, has expressed interest in an early land trade through GSA. Such a trade would provide the required "owned" site for the NCAR facility in advance of the specific appropriation to erect the building. We have expected to acquire the remaining 3/4 section through lease from the State of Colorado prior to its purchase.

In light of the concern expressed by the adjacent property owners, we will immediately shift our emphasis to Site B. We will now determine if the State Land Board will negotiate for a similar trade. If so, it is very possible the concerns expressed by the nearby residents can be resolved.

We look forward to working out a satisfactory solution to the problem.

Sincerely,

Original signed by
G. G. Little
for

Wilmot N. Hess, Director
Environmental Research Laboratories

Talked with Peggy Reid. She is going to send Sen's office a copy of reply + incoming correspondence. 10/9/75

United States Senate

Denver Federal Bldg
1961 Stout St.
Denver, Colorado 80202

Respectfully referred to:

N. W. Stiewig

Because of the desire of this office to be responsive to all inquiries and communications, your consideration of the attached is requested. Your findings and views, in duplicate form, along with return of the enclosure, will be appreciated by

RECEIVED
SEP 25 1975
RSS/R5x1

Floyd K. Haskell
U.S.S.

Form #2

Attn: Fay Strauss

United States Senate

MEMORANDUM

Dear M. Stuart -

I spoke to one of the signers, questioning their lack of objection at the time of the meeting. The response was that a number of families remained after the meeting to voice objections — one family remaining for almost an hour and a half.

Thanks for your help —

Fay Stauss

September 22, 1975

roperty owners wish to protest the joint venture of the logical Observing Facility (JNOF) the National Oceanic ospheric Administration (NOAA) and the National Center for eric Research (NCAR).

posed site for this research and engineering facility is on sixteen of which we are property owners.

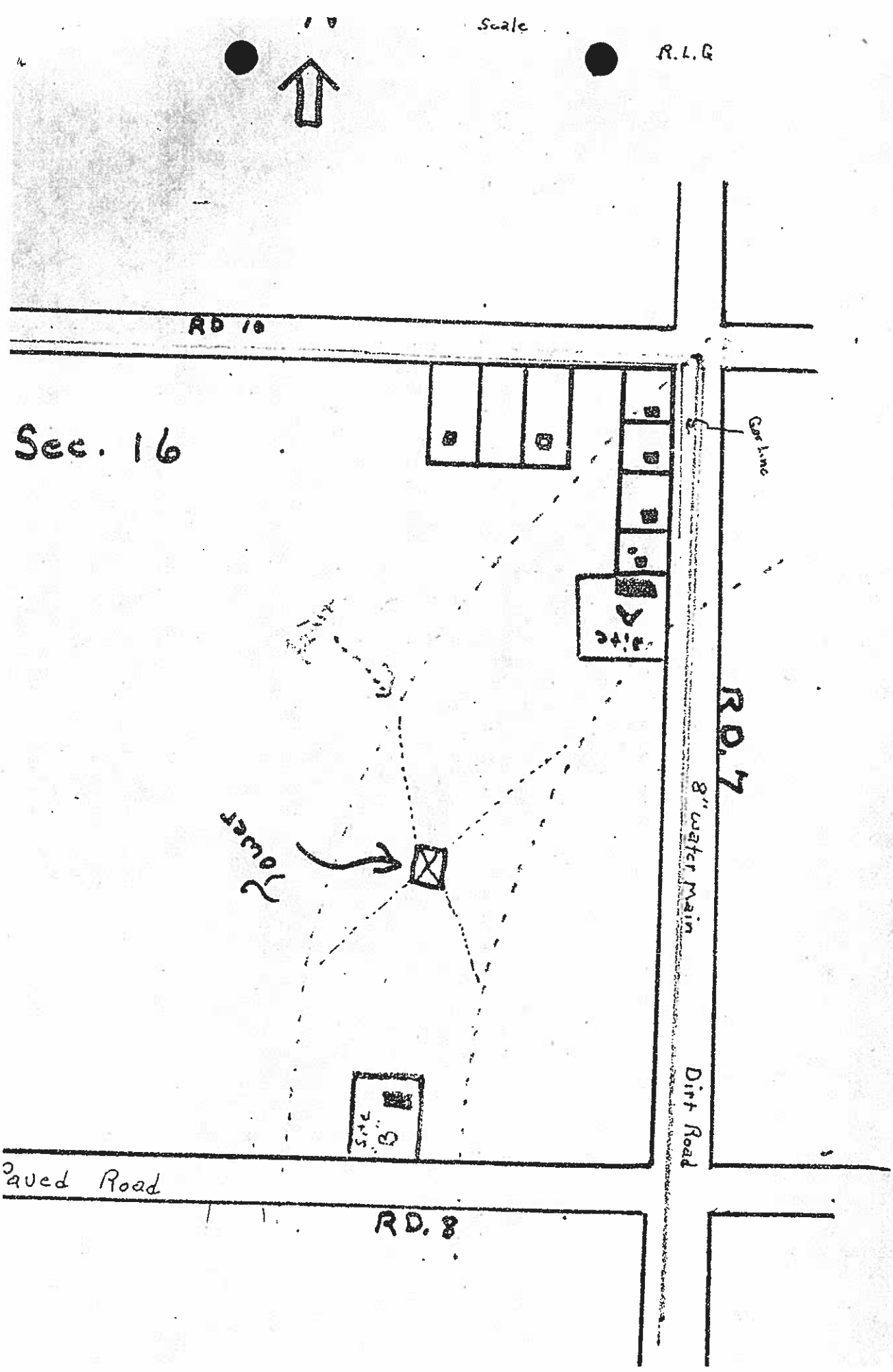
ection is only to their office and research building in their d Site A, located on the north east corner adjacent to our ies.

ngly feel that a building with a parking lot to accommodate ersonal and their atmospheric research equipment which are and mounted on semitrailers and such, would seriously damage perty value and scenic country atmospher. Also with the raffic would be a traffic hazard to our children.

AA and NCAR also have an alternative Site B of which we ave no objection to. One of their dominat selection factors avel time from Boulder". Site B would be three miles a day Their objection to Site B was the added expense of running d gas lines approximatly an extra half mile. Also it is our anding that they are not able to obtain a property deed from e of Colorado for Site B. We were told by Mr. Frost that uld eventually purchase all of this section and therefore we understand why they cannot obtain a deed.

property owners, Feel that the added expense to JNOF, NOAA would be nominal compared to our losses to property value ronment. We feel that something should be worked out to able to everyone concerened.

Russell L. Goodwin
June Goodwin
Richard E. Miller
Barbara L. Miller
Lloyd Johnson
Patricia E. Johnson
Margaret R. Knox
Dennis R. Kay
Shirley M. Smith
Maureen Fogerstone


Scale
R.L.G
RD 10
Sec. 16
Gas line
Site A
RD. 7
8" water Main
Dirt Road
Tower
Site B
Paved Road
RD. 8

GENERAL SERVICES ADMINISTRATION

ROUTING SLIP

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10

NAME/TITLE	CORRESPONDENCE SYMBOL
Stewig	R5x1

IT SYMBOL	☐ HANDLE DIRECT	☐ READ AND DESTROY
	☐ IMMEDIATE ACTION	☐ RECOMMENDATION
STED	☐ INITIALS	☐ SEE ME
NCE	☐ NECESSARY ACTION	☐ SIGNATURE
ON	☐ NOTE AND RETURN	☐ YOUR COMMENT
	☐ PER OUR CONVERSATION	☐ YOUR INFORMATION
ORT	☒ PER TELEPHONE CONVERSATION	☐

OR ACKNOWL-
OR BEFORE _____

REPLY FOR
IATURE OF _____

te - Let me know if
u need further clarification
this. No. 3 appears to
y real problem.

RECEIVED
OCT 02 1975
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R1	R2	R3	R4	R5	R6	R7	R8	R9	R10

	CORR. SYMBOL	BUILDING, ROOM, ETC.
Neele	TELEPHONE	DATE 10/1/75

975-0-585-714/107

GSA FORM JUN 67 14

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nt).

Exchanges will, as a matter of policy, be held to a minimum and will be undertaken only if the following guidelines are fully met thus clearly indicating that an exchange would be in the best interest of the Government. Each proposed exchange must be fully justified and receive the approval of the Administrator prior to any action to negotiate with the parties involved.

1. The exchange is for a specific real property requirement that is proposed on a highly selective basis and the Federal agency requesting the exchange has obtained a congressional authorization in the form of statutory authority or an appropriation which, in either event, anticipated acquisition of the property. In the absence of congressional approval in this form, it may be possible for the Federal agency to obtain agreement to the transaction between substantive congressional committees responsible for the program operations of the agency.

2. Exchanges will only be negotiated with owners of real property where the exchange is for mutual convenience. In no case will GSA negotiate with a party who has to get an option on the property which the Government wants to acquire before making an exchange offer to the Government.

3. Any recommendations to the Administrator proposing an exchange transaction must not only propose an exchange of properties based simply upon adequate and mutual consideration and a justified agency program of use. Rather, there must also be a detailed explanation of (1) the substantial economic or unique program advantages clearly accruing to the Federal Government from the exchange transaction not otherwise obtainable by any other method of acquisition; and (2) the circumstances rendering an exchange transaction itself critical to the Government's objective (for example; why the acquisition of the particular properties involved are so essential to both parties that any alternative to an exchange would not be feasible or might result in excessive costs to the Government).

DATE: September 30, 1975

TO: Bob Krinks, R45x8

Original Signed by
C. M. Purdy

FROM: C. M. Purdy, Chief
Administrative Services

SUBJ: 380 Meter Tower

The only question NOAA Headquarters has concerning the new tower was the reason's behind not having a handrail on the ladder.

I would appreciate knowing the reasons behind your decision. So should this be brought up at some future date I can be prepared to defend your position.

cc: Henry Yekel, 281.00

bcc: Subject
Chrono
R5 Routing

COPY

JMOF tower

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

OFFICE OF THE
ASSISTANT DIRECTOR
FOR ASTRONOMICAL, ATMOSPHERIC,
EARTH, AND OCEAN SCIENCES

SEP 19 1975

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SEP 24 1975
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9-24-3
Office of Director

SEP 24 '75 AM

D ✓ DD ✓ RSS
OP ✓ WM PA
MESA MEAP

Dr. Robert M. White
Administrator
National Oceanic and
Atmospheric Administration
U.S. Department of Commerce
Rockville, Maryland 20852

Dear Bob:

This is in response to your letter of August 25, 1975, concerning NOAA's and NSF's interest in the Joint Meteorological Observing Facility (JMOF).

As you had suggested in your letter, Mr. Joseph Fletcher, Deputy Director of NOAA's Environmental Research Laboratories (ERL), visited NSF on September 11, 1975. Mr. Fletcher's visit is very much appreciated because it afforded an opportunity to discuss several scientific programs of mutual interest.

In regard to your letter to me of August 25, 1975, concerning the JMOF, we concluded that representatives of ERL and NSF should hold further discussions. One of the objectives would be to draft a memorandum of understanding on the purpose and goals of the JMOF including plans and estimated costs. Then this document could be used for future development and budgeting.

I suggest your designated representative call Dr. Edward Todd, Acting Director, Division of Atmospheric Sciences of NSF, to arrange a mutually convenient meeting.

Sincerely yours,

/s/ Robert E. Hughes

Robert E. Hughes
Assistant Director

Copy to:
✓Dr. Wilmot N. Hess
Director, ERL

Dr. Francis P. Bretherton
Director, NCAR

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

September 18, 1975

Allan Thomas

Nate Stiewig

/ understanding of the requirement for
ongressional authorization prior to
nitiating a real property exchange thru
SA is as follows.

he request to GSA for the exchange must
e accompanied by evidence that the Federal
gency requesting the exchange has
ongressional authorization in the form
f statutory authority for the program or
n appropriation which, in either event,
nticipated acquisition of such property.

n the absence of Congressional approval
n that form, it may be possible for the
ederal agency to obtain agreement to the
ransaction by the Congressional committees
esponsibility for the program operations
f the agency.

his requirement was established by an
nstruction to the field dated June 2, 1975
rom the Commissioner, Public Building
ervice, GSA Headquarters.

MITTAL FORM CD-82A (10-67)
RIBED BY DAO 214-2

202-343-4784

[illegible]
Western Division Acting
202-343-4153

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

September 10, 1975

Able Engineering Company
P.O. Box "C"
Goleta, CA 93017

ATTN: Max D. Benton

Dear Sir:

In reply to your letter of August 29, 1975, I am enclosing a copy of the organizational chart for the Environmental Research Laboratories which will give you information covering the various laboratories which fall within the Environmental Research Laboratories and their locations.

We currently have open an Invitation for Bid for a tall meteorological tower. I understand that you have discussed this procurement with Mr. Yekel of our procurement staff and have come to the mutual conclusion that such a tower is beyond the scope of your present activities since the technology involved in towers over 1,000 feet is significantly different from those of lesser heights.

Thank you for your brochure describing your ground-application portable towers. I am forwarding it to our Procurement Office for future consideration in the event we have future requirements along this line.

Sincerely,

Original Signed by
N. W. Stiewig

N. W. Stiewig
Assistant Director
Research Support Services

cc: Mr. Yekel

bcc: R5x1
R5
Chrono

NWS/kcs/9/10/75

CODE	SURNAME	DATE	CODE	SURNAME	DATE
R5x1	NW Stiewig	9/10			

NOAA FORM 61-2

E COPY

Stieving

UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH

BOULDER, COLORADO 80303

Office of the President

Mailing Address:
UCAR, P. O. Box 3000
Tel: 303-494-5151

8 August 1975

8/11/75
Office of Director

AUG 08 '75 PM
D DD RSS
OP WM PA
MESA MEAP

Dr. Wilmot N. Hess
Director
Environmental Research Laboratories
NOAA
Boulder, Colorado

Dear Bill:

You may have seen by now the letter that Bob Hughes wrote to Bob White on 1 August concerning NCAR's participation with NOAA in the JMOF. I want very much to talk with you about this and will get in touch with you when you return to Boulder. By that time I will have visited NSF and had conversations with Hughes and others concerning NCAR's commitment to JMOF.

Yours sincerely,

Francis P. Bretherton

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

88-06

Date: JUL 11 1975

To: John V. Neale, Director
Real Property Division, Public Buildings Service
GSA Region 8, Denver, Colorado

From: Assistant Director, Research Support Services, R5x1

Subject: Request for Surplus Land for Possible Exchange

This will confirm our verbal request that you hold in abeyance disposition of the former missile site near Elizabeth, Colorado, for a possible exchange for land near Erie, Colorado, which is required by the National Oceanic and Atmospheric Administration for construction of a tall meteorological tower. This tower is planned as a key facility of a Joint Meteorological Observing Facility (JMOF) being planned by this Agency and the National Center for Atmospheric Research.

A tentative site for this JMOF has been identified near Erie, however, because of the extensive mining activity which has been conducted in the past near this site, it is necessary that soil borings be made to ensure that there is sufficient solid ground available to support the tower.

A contractor has been selected to do this work. However, we must allow at least two weeks for negotiation of the contract, and for the contractor to begin work. The contractor's proposal indicates that it might take as long as six weeks to complete the soil borings. Therefore, I feel that the earliest we could submit a proposal for implementing the exchange is September 1, 1975.

bcc: Assistant Director, WPL, R45
Merle Gibson, 281.00
R5x1
R5
Chrono

NWStiewig/kcs/7/10/75

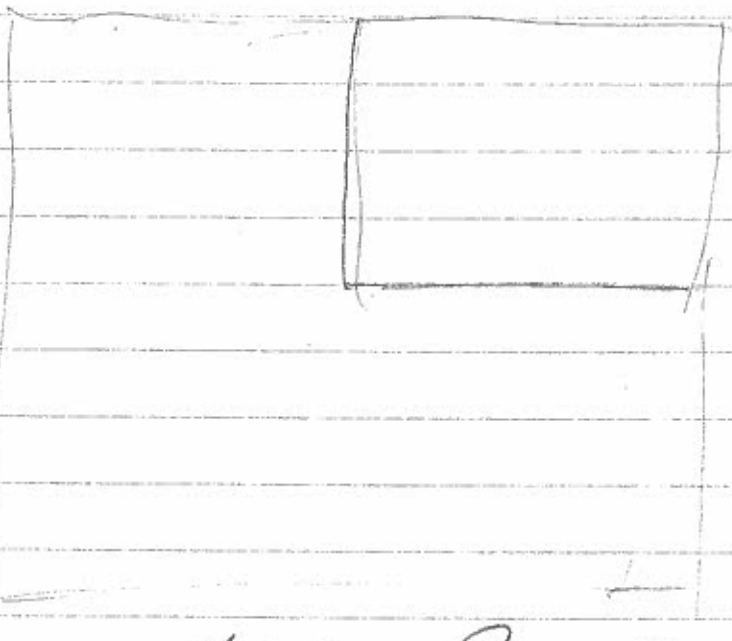
CODE	SURNAME	DATE	CODE	SURNAME	DATE
R5x1	NW Stiewig	7/10			
	RJL	7/10			

E COPY

NOAA FORM 61-2

JMOP

Recommendation for A-E firm for Seitz Catalpa — July 9, 1975



Fed County Planning Meeting 1st + 3rd Tuesday at 2.

1. Scientific unit development type of zoning
2. Back to State about trade
3. " " " " power of attorney for making application for zoning change.
   a. application can be made subject to satisfading lease arrangement.
4. Back to Carlson about Trade, possibility of including ordnance alts in trade. If not explore easement possibility

Front available anytime next week except Thursday morning.

6-1

5-1

4-15

4-1

Dr. Dodville - Efflend Industries 3-16-75

Bob Frost - Merle Gibson

Donation

Agr. lease

consideration apply to purchase price

Weld County land transaction restrictions may be applicable only to land transactions for residential use.

UPLAND INDUSTRIES
CORPORATION
SUBSIDIARY OF UNION PACIFIC CORPORATION

1975 MAY 27 AM 11 11

E. E. DODRILL
MANAGER – COMMERCIAL SALES

May 23, 1975

RECEIVED
N. B. S. BOULDER LABS
PROCUREMENT OFFICE

Mr. Merle V. Gibson
Admin. Contracting Officer
Contracting Office
U. S. Department of Commerce
National Oceanic & Atmosphere Admin.
Enviornmental Research Laboratories
Boulder, Colorado 80302

Re: Sections 10 and 17, Township 1 North, Range 68 West, Weld County, Colorado.

Dear Mr. Gibson:

Please refer to your letter of April 23, 1975, directed to this office, relative to the above-named subject.

I regret to inform you we must decline your offer to negotiate for an agricultural lease of either Section 10 or 17 (for end use by present lessee of Section 16 so as to release said Section 16 for Department of Commerce use). Both Sections 10 and 17 are under lease and have been for quite some time. Until such time as the highest and best use of the land can be upgraded, it is Upland's decision to continue with our present lessee.

Should you become interested in acquisition of any of our Weld County properties, either by purchase or lease based on fair market value, I will be happy to again discuss such a possibility.

I want to thank you and your associates for your interest in Upland properties. Sorry we could not arrive at a mutually acceptable approach. Perhaps next time. Thank you again, and please let me know if I can be of help in any other way.

Yours very truly,

E. E. Dodrill

E. E. Dodrill

SUITE 1620 PRUDENTIAL PLAZA / 1050 SEVENTEENTH STREET / DENVER, COLORADO 80202
TELEPHONE (303) 572-0653
(303) 534-4141

5/27 – Cys of ltr to Frost & Sherman

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

OFFICE OF THE ADMINISTRATOR

Date: June 2, 1975

Reply to Attn of: Axl

Subject: Meteorological Tower for WPL

To: Wilmot N. Hess
Director, ERL

Ref: Your Memo of May 20

6-4-75
Office of Director
JUN 04 '75 AM
D.... DD.... RSS....
OP.... WM.... PA....
MESA.... MEAP....

copy to WPL

You have my permission to proceed with the plan for acquiring a meteorological tower for WPL.

John W. Townsend, Jr.
Associate Administrator

cc: O'Meara
Epstein

6/5 cy sent to Dr. Little

OR 6 2-11

MEMO FOR THE RECORD

April 25, 1975

FROM: Bob Frost/Med Medrud

SUBJECT: JMOF Progress Report #2

1. The Tall Tower: On April 11 WPL's consulting engineers, Minasian Associates, reported the tower near Springfield, Illinois, was not strong enough to meet code requirements for Boulder County. The JMOF tower must be constructed to withstand 65 lbs. per square ft. wind loading with one-half inch radial ice on all members. The existing tower if reconfigured into a 300 meter tower would have had a safety factor of less than 2 (the accepted minimum) for the most detrimental loading conditions. With possible access to that preowned tower set aside as an alternative, WPL management proposed to erect the first 300 m of a new tower designed to be extendable at a later date to 500 m. ERL/NOAA management accepted the proposal and authorized procurement on April 15.

Specifications for the tower are scheduled for completion by April 25. IFB action is planned before the end of April. The two probable bidders on the tower, Kline Iron and Steel Co., and Stainless, Inc., have indicated informally delivery and erection within 12-14 months from date of award. Erection before the end of September, 1976, will be a goal.

2. JMOF Site And Land Acquisition: Minasian Associates, working with consulting geological and soils engineers, studied in detail the effects coal mining has had on the two primary sites. (See Appendix A) It was determined the extensive mining under the eastern three-fourths of Section 10, and lack of evidence of subsidence, eliminated Section 10 as a site for the tower.

An uplift fault running northeasterly through the coal field of Section 16 should provide adequate stable area for the erection of the tall tower. Core drilling will be accomplished at each of the outlying anchor points for the future 500 m tower to prove their stability. Subsequent drilling will be conducted at the proposed tower site and the remaining anchor sites. Until this test drilling is accomplished, it is not certain that a 500 m tower can be accommodated on Section 16. There is 80% certainty now that a 300 m tower can be sited without risk on Section 16. The required drilling should be completed in June 1975. The present WPL viewpoint is to prefer a 300 m tower on Section 16 over a 500 m tower at a more remote site.

The map of Appendix A shows the fault passing through the SE quarter of the NE quarter of Section 16. The private land owner of most of this quarter section is interested in trading part of his holding for another piece of Federal land. Such a trade would provide the "owned" land for the FOF permanent facilities. The acreage proposed for trade would thus be in the stable area. Irrigation water is also accessible to this area.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

R45

Date: May 19, 1975

To: Files

From: Robert T. Frost, Ass't Dir. WPL

Subject: JMOF Siting - Deep Drilling

Telecall with John Romero of the State Water Resources Division, and through him with their staff attorney, determined that no license or permit is required to conduct geological drilling, or soils examination drilling at the proposed JMOF site. Licensed drillers are required by state law to back fill all vacated holes to prevent contamination of ground water.

cc: G. C. Little
F. F. Hall
R. W. Krinks
N. Stiewig
M. Gibson
Minasian Assoc.

Mr. Ralph Rieder, the lessee of the State-owned land of Section 16 has now agreed to the drilling activity. Negotiations are to begin with the owner of two nearby sections to acquire alternate farming sections for Mr. Rieder. This action will permit the JMOF to eventually control the surface use of all but 40 acres of Section 16, beginning January 1976, once the site is under lease with options to purchase.

Preliminary steps have been taken by ERL and NCAR to request land purchase and facility construction funds.

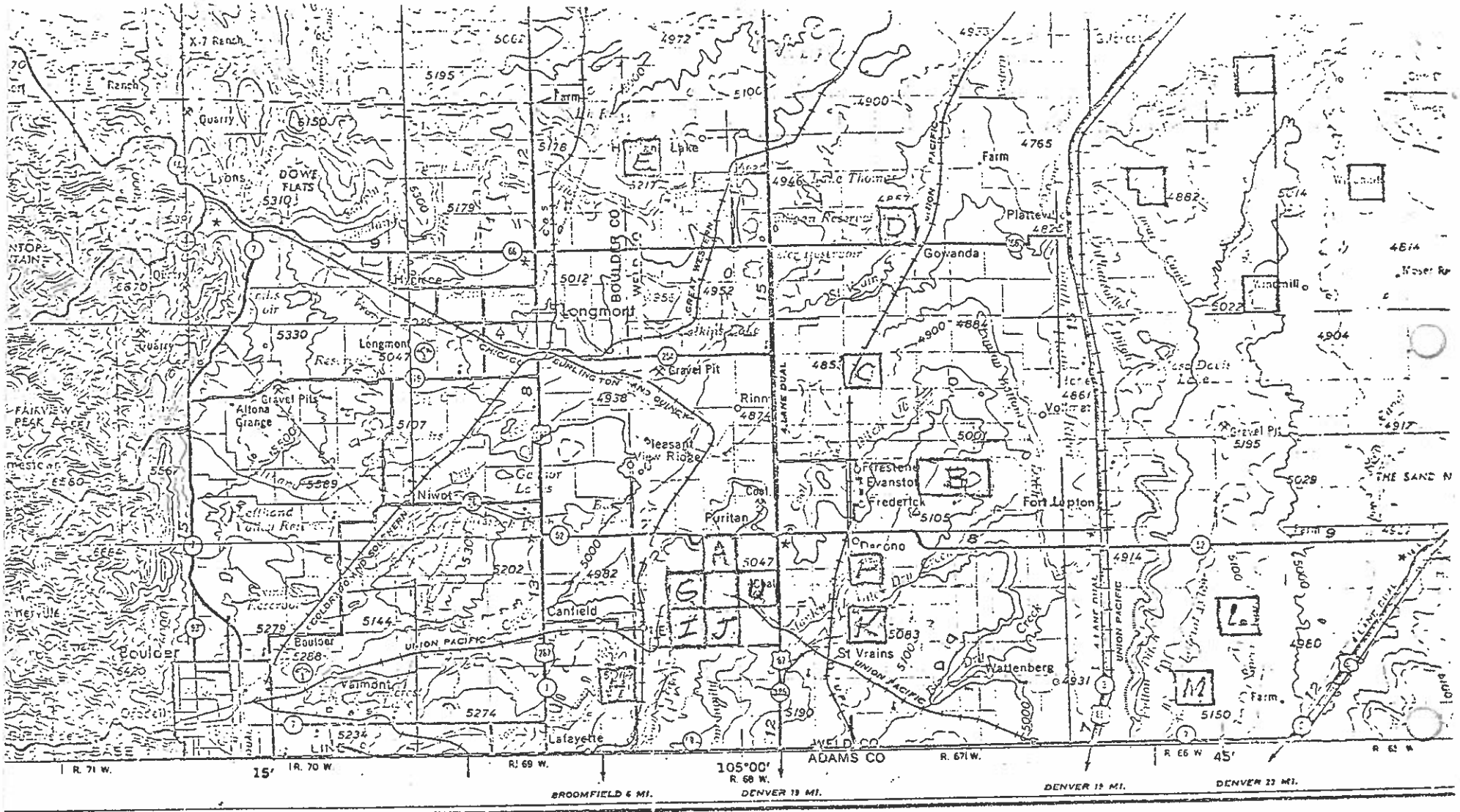
3. Environmental Impact Assessment: A preliminary field study and report has been made by Professor Marr relative to the existing bio-environment. An application has been filed with the FAA for the erection of a 300 m tower on Section 16. Increased activity is planned to determine attitudes of environmental groups and area residents to the proposed JMOF changes.

4. Management Policy: NCAR officials met on April 14 to discuss the draft document "Statement of Common Intentions" regarding JMOF. Agreement on minor changes in wording is expected shortly.

5. Scientific Potential: A cooperative NCAR/WPL program is proposed and is now being evaluated by each organization for study of the boundary layer at WPL's Haswell tower the latter two weeks of September of this year. The proposed program has implications for the JMOF in that it is illustrative of the kind of cooperative research which is expected to prevail at the JMOF on its completion. The program objectives include the study of fluxes and turbulence in the growing and entraining boundary layer and the scaling of free convection phenomenon through the layer. WPL and NCAR will each contribute to the instrumentation in the observing phase. Among the significant items of instrumentation are WPL's tower and acoustic sounder and NCAR's Electra and Queen Air aircraft as well as its lidar, radiosondes and tethered balloon sounding systems.

APPENDIX A

Section 16 is the proposed site for the JMOF. The fault believed to be unmined lies between mined areas of the Clayton, Morrison, and Eagle coal mines. The spur to the NW of the fault may also be unmined. Drilling will confirm its usability for tower anchor sites.


Scale 1:250,000
20 Statute Miles
30 Kilometers
15 Nautical Miles
LOCATI
NK 12-6
NK 12-9
NK 12-12
NJ 12-3
APPENDIX B
Regional map displays all sections considered as potential JMOF sites. Site selection study reduced principal candidates to sites E, U, and J. Site J is Section 16 now the preferred site for the JMOF.

BOARD OF LAND COMMISSIONERS

DEPARTMENT OF NATURAL RESOURCES
201 Columbine Building
1845 Sherman St., Denver, Colorado 80203
(303) 892-3454

April 24, 1975

U. S. Department of Commerce
National Oceanic and Atmospheric Admin.
Environmental Research Laboratories
Boulder, Colorado 80302

Attention: Mr. Merle V. Gibson
Administrative Contracting Officer
Contracting Office

Re: Lease S-34537

Gentlemen:

You are hereby granted permission to enter our Section 16, Township 1 North, Range 68 West in Weld County, Colorado, to perform test drilling for a proposed tower foundation.

Kindly contact our lessee, L. H. Rieder (or Arthur Rieder) telling him when you want to enter onto the tract.

Sincerely yours,

STATE BOARD OF LAND COMMISSIONERS

Robert D. McPhee
Engineer

RDM:ish
cc: L. H. Rieder
and Arthur Rieder
3715 Weld Co. Rd. 12
Erie, Colorado 80516

April 23, 1975 281.00

Mr. R. K. Dodrill
Commercial Sales
Upland Industries Corporation
Suite 1620 Prudential Plaza
1050 Seventeenth Street
Denver, Colorado 80202

Subj: Sections 10 and 17, Weld County (Township 1 North, Range 68 West)

Dear Mr. Dodrill:

Please forgive the length of time it has taken to respond to your letter of March 18, 1975.

The National Oceanic and Atmospheric Administration has been in the process of investigating several sections of land for the purpose of establishing a joint meteorological facility with the National Center for Atmospheric Research. Your land, Section 10, has been the primary choice of the selection committee.

However, current information from our consulting engineers, based on their studies and on a March 1975 report from the State of Colorado entitled "Coal Mine Subsidence and Land Use in the Boulder-Weld Coal-field, Boulder and Weld Counties, Colorado", indicates that Section 10 is too heavily mined to consider for the facility due to the potential danger of subsidence. The only unmined land on Section 10 was along the extreme West portion and this was considered too narrow to be used.

The Government's second choice is Section 16 which is primarily owned by the State of Colorado and leased for agricultural purposes to a Mr. L. H. Rieder. Studies show that this section has been heavily mined but due to a geological fault, there is sufficient unmined land available for the facility. We would like to proceed with the purchase of Section 16 but our funding situation requires that we lease for at least the first two years. As a part of our program it is necessary that we control the surface use of the land and it would be our intent to take it out of a dry land farm operation.

April 23, 1975

281.00

The current lessee farms only this section and has a lease through 1982. We have discussed our requirements for the surface use with Mr. Rieder and find that our moving his agricultural operation to another section would be a viable alternative.

In order to accomplish this objective we would like to negotiate with you for the agricultural lease of Section 10 or Section 17. It would be our intent to pay a lease price commensurate with the amount paid by your current lessee. Renewal options, lease clauses, etc., would be as mutually agreed upon.

We would appreciate an early reply. Your understanding and cooperation is sincerely appreciated.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stievig-R5xi
N. Medrud, Jr. - NCAR

MVG/df

April 22, 1975 281.00

Mr. Raymond H. Simpson
President
Board of Land Commissioners
Department of Natural Resources
201 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

Ref: Your Lease No. S-34537; Section 16, Township 1 North, Range 68 West

Dear Mr. Simpson:

The National Oceanic and Atmospheric Administration and the National Center for Atmospheric Research have determined, subject to further testing, that Section 16 is the primary potential site for their meteorological tower.

In order to make our decision, it is necessary that we take core samples to determine the consistency and stability of the ground. Four or five core samples are contemplated and each would consist of a 6" or 8" hole drilled to a depth equal to any known mining activity in the area. The holes will be backfilled after the sampling. We would attempt to conduct these drilling operations on land presently lying fallow. This might not always be possible and where crop damage resulted we would compensate the lessee for this loss.

The purpose of this letter is to obtain your permission to take core samples from the State owned land on Section 16. This permission would be granted under the conditions outlined above and/or any other conditions mutually agreed upon.

Please sign and return a copy of this letter.

Your continued cooperation is sincerely appreciated.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc; Frost-R45
Striewig-R5x1 4-24-75
N. Madrud Jr.-NCAR

MVG/df

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

R5x1/NWS

Mr. L. H. Rieder
3715 Weld County Road 12
Erie, Colorado 80516

Dear Mr. Rieder:

As you know, the National Oceanic and Atmospheric Administration is considering among other potential sites, acquisition of lands in section 16 for which you presently hold agricultural leases.

Our intended use of this land is for the purpose of establishing a meteorological facility jointly with the National Center for Atmospheric Research.

In connection with the building and tall meteorological tower which are planned for the site selected, it is necessary that we take some core sampling to determine the consistency and stability of the ground, and thus its suitability for the uses intended. Four or five core samples are contemplated and each would consist of a 6" or 8" hole drilled to a depth equal to any known mining activity that has been conducted in the area. The hole will be back filled after the sampling has been completed; however, there may be some residue of dirt remaining after the operation has been completed. We would attempt, insofar as possible, to conduct these drilling operations on land presently lying fallow. This might not always be possible, though, and where crop damage resulted we would compensate you for this loss on a basis to be mutually determined.

The purpose of this letter, therefore, is to obtain your permission to take these core samples on land you currently hold under lease in section 16. This permission would be granted under the conditions outlined above and/or any other conditions mutually agreed upon. It will be necessary for us also to obtain permission from the owner of the land and any third parties which hold mineral rights to this land.

Your understanding and cooperation in assisting us with the location of this facility will be most sincerely appreciated.

Sincerely,

Merle V. Gibson
Administrative Contracting Officer

AGREED AND ACCEPTED

L. H. Rieder
April 18, 1977 (Date)

UPLAND INDUSTRIES
CORPORATION
SUBSIDIARY OF UNION PACIFIC CORPORATION

E. E. DOORILL
MANAGER – COMMERCIAL SALES

March 18, 1975

Mr. Boyd L. Green
Contracting Officer
U. S. Department of Commerce
Enviornmental Research Lab
Boulder, Colorado 80302

Re: Section 10, Weld County (Township 1 South, Range 68 West).

Dear Mr. Green:

In answer to the two key questions in your letter of February 19, 1975, I submit the following:

1. This office would recommend a lease to the government of surface rights for agricultural purposes if, in fact, the land would be utilized for that purpose. On further investigation with our lease department, it has been established that agricultural lease rates are based not only on acreage but also on crop production in which the lessor participates in the profits as a part of his remuneration. Inasmuch as your use of the land would not actually be the production of crops, the agricultural lease rate structure would not apply. The lease rate more applicable would be the one based on present fair market value capitalized at a rate which would yield an acceptable return.

SUITE 1620 PRUDENTIAL PLAZA / 1050 SEVENTEENTH STREET / DENVER, COLORADO 80202
TELEPHONE (303) 572-0653
(303) 534-4141

2. Yes, this office would recommend the sale of a 20 acre parcel of Section 10 to the government.

Please refer to my letter of December 11, 1974, directed to Mr. Merle Gibson.

The price structures, terms and conditions as outlined in that letter will essentially remain the same. The only changes would be in the allocation of acres to the lease and those designated as "sale" acres.

Thank you again for your continued interest. Perhaps we may soon finalize our agreement and proceed with documentation.

Yours very truly,

E. E. Dodrill

MAR 17 1975

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

Date : MAR 11 1975

Reply to Attn. of: PB

3/17/18
Office of Director

To : MLC's and AA's

From : Robert M. White
Administrator

RMW

MAR 17 '75 PM
D DD RSS
OP PA
MESA MEAP

Subject: FY 1977 Guidance

Attached is my guidance for the FY 77 budget and format instructions for the preview submission. In addition to the preview requirements, you should proceed as rapidly as possible to definitize those new or changed items which do not have an assigned dollar level.

Attachments:
FY 77 Guidance
Format Instructions

planning staff and both in-house and contractual studies. A briefing that outlines planning activities, how SESAME meshes with other national programs (e.g. NHRE) using similar major facilities, and an updated time-phased schedule should be prepared for presentation to EM in mid-April.

f. STORMFURY 57/$4100

The FY 1977 weather modification programs and the RFF modernization program should proceed closely aligned to the special budget discussions conducted at NOAA between Dr. Townsend, Dr. Hess, and respective staffs on February 25, 1975. The decisions arrived at and actions required are summarized below.

- The aircraft recommended for use in Project STORMFURY are two WP-3D's and one C-130B from NOAA, one CV-990 from NASA, and one WC-130B (AWRS equipped) from the USAF but bailed to NOAA. If the USAF C-130 cannot be bailed to NOAA, our backup position would be use of the NSF C-130R's.
- EM will negotiate the bailment of the C-130 with the USAF.
- To insure needed coverage of the tropical storms selected for experimentation, funds should be included in the FY 77 budget to provide for a second crew for the NASA CV-990.
- The total flight hours scheduled for operations in FY 77 and FY 78, 1000 and 1500 hours respectively, do not constitute efficient use of the NOAA aircraft and unduly penalizes other NOAA programs requiring aircraft support services. The flight program should be adjusted to provide for approximately 200 flight hours for other NOAA programs.
- In order to provide approximately 366 flight hours in 76 1/4, it will be necessary to defer some planned expenditures in FY 76 and 76 1/4 and make them up in FY 77.
- The additional people pose us a major problem. For the time being I would like to assume that we will use Civil Service or NOAA Corps crews on our aircraft.

g. Meteorological Tower (JMOF) 0/$752

I will agree to this one-time expenditure for instrumenting the tower and for purchasing the surrounding 640 acres.

h. International Magnetospheric Study TBD

I support the NOAA contribution to IMS presented at Goddard for distributing magnetometer data, through the GOES satellite data link, to scientists worldwide on a near realtime basis. I trust this activity will be properly coordinated with other U.S. agencies and users for optimum use by all investigators in the IMS program. (Coordinate this with the EDS role in IMS.)

In addition to the program outlined at Goddard, I will support a program on Ionosonde maintenance and purchase consistent with the recommendations made both in the NAS International Magnetospheric Study

POE: Environmental Research Laboratories

Appropriation: OR&F

Activity: Basic Environmental Services

Sub Activity: Basic Observations

Line Item: Remote Sensing

Increase Title: JMOF Instrumentation and Land Increase Amount: 0/$752K

This increase provides for the instrumentation and land acquisition for the Joint Meteorological Observing Facility. Funds provide for standard in-situ instrumentation at ten levels on the 500-meter tall tower, and for the microbarograph, acoustic-sounder, and laser beam arrays on the surface surrounding the tower. A data logging system will be acquired to record and control both the tower and surface instrumentation. Land purchase will provide permanent control over the surface use of 620 acres of land surrounding the tower and the additional 20-acre site for the permanent buildings of the National Center for Atmospheric Research. This site, with its unique array of instrumentation is required to speed the development of new atmospheric remote sensing capabilities, and will also permit rapid exploitation of these totally new capabilities in unique, cooperative studies of the atmospheric boundary layer, including free convection, radiation inversions, gravity waves, atmospheric turbulence and diffusion, and aerosol and cloud and precipitation studies.

FY 78	FY 79	FY 80	FY 81
0/-$752K	0/0	0/0	0/0

Legislation requirements: None

Prepared by: William D. Kleis (303) 499-6212

APR

N. H. Steiner

REC'D RSS/ERL 75 MAR 10

February 28, 1975

Ami

3/10/75
Office of Director

WPL Tower

MAR 10 '75 AM

The Record

D.../ DD.../ RSS.../
OP.../ WM.../ PA.../
MESA.../ MEAP.../

Bob White, Bill Hess and I met on February 26 to cover a number of items. One of the subjects was funding for the proposed WPL tower. Our conclusion was that NOAA would relinquish any further claims in FY 75 and 76 on surplus GFDL computer money. In turn Bill Hess will handle the cover problem within his resources as well as switching gear for Milton Ferguson's radar. Further, ERL understands there will be no FY 76 Administrator's Reserve money available to them next year.

It is our understanding that Gordon has found a surplus tower and that GSA is close to a land swap that will provide the basic site for the tower. This leaves us the option of future lease of land around the central site for protection purposes.

The proposed increase in FY 77 will still remain as one of NOAA's proposals and is not affected by this deal.

John W. Townsend, Jr.
Associate Administrator

cc: R. White
E. Epstein
R. Beck
W. Hess

J.A.K. 11 MAR 75

February 19, 1975 281.00

Mr. E. D. Dodrill, Manager
Upland Industries Corporation
Suite 1620, Prudential Plaza
Denver, CO 80202

Dear Mr. Dodrill:

In Merle Gibson's absence, I would like to follow up the telephone conversation between you and Bob Frost on February 14, 1975.

Our site selection process is proceeding now that we have our appraisals in hand. We also have authorization to erect a tall tower on land initially leased. Our principal concern now is to identify all possibilities that will permit the erection of permanent observatory buildings on a twenty acre owned site at the earliest possible time.

We are interested in determining the fullest range of alternatives that will meet this objective. Two new possibilities have been identified involving your Section 10 (T1N R68W) where favorable response from you would expand our alternatives.

1. Will you lease to the government surface rights for agricultural purposes on your Section 10?

2. Will you sell to the government a 20 acre parcel of Section 10?

Perhaps there are other possibilities.

An initial informal response to these possibilities can serve as an important prelude to negotiations for site selection. We appreciate your interest in our proposed field site land needs.

Sincerely yours,

BOYD L. GREEN
Contracting Officer

cc: ✓Gibson - 281.00
Stiewig - R5x1
Frost - R45x0
Medrud, NCAR

Date Stamp

REC'D RSS/ERL '75 FEB 12

11 February 1975

MEMO FOR THE RECORD

FROM: Bob Frost/Med Medrud

SUBJECT: JMOF Progress Report #1

1. Land acquisition: Three sites continue under active study, i.e. the section designated as site E northeast of Longmont and the sections designated J and N east of Erie. Site J is owned principally by the State of Colorado, with an approximate quarter section in private hands. Site N is owned by the Union Pacific Railroad. Several parties each own small portions of site E. A possibility exists for a trade of federally owned land for a portion of the privately owned land in site J. A successful trade will provide the owned land necessary for construction of the FOF/JMOF permanent facilities. Surface use of the state land in this site is under lease until 1982. Preliminary discussions have been held with the lessee to explore alternatives in acquiring access to and usage of the surface.

A commercial land appraisal has been completed on all sites under consideration. Estimates expressed in the joint study were realistic.

2. Tower structure and facilities: By way of background it is noted that Department of Commerce approval has been given to erect a tall tower on land leased prior to purchase. In the near term, tower prospects include:

a. A 450 meter tower, nearly new, and quite possibly suitable for removal, modification and re-erection at the JMOF site. A feasibility study for extension of the tower height to 500 meters is underway.

b. Responses to a public announcement of interest in the availability of other towers.

An architectural engineering firm, Minasian Associates, has been identified as first preference among many considered for a consulting contract. The contract is expected to be awarded shortly.

3. Tower Instrumentation: The parameters to be recorded have been selected and will be measured at eleven fixed levels on the tower and on the carriage. Commercially available and in-house sensors have been identified to acquire the measurements. Signal conditioning from the

sensors to a tower-mounted digital acquisition system has been designed and a prototype constructed. A commercially available digital package for the various tower levels seems to be the most efficient and economical approach at this time.

4. Data acquisition and recording: The basic system has been identified and some informal quotations on price and delivery have been received. The system records the data on digital tape, with its calibration, and will provide users with a real-time display of selected parameters and access to several hours of previously recorded data.

5. Permanent facility: NCAR/UCAR management has approved the JMOF concept as the item of top designation for above-level funding in the FY 77 funding request. A formal presentation will be made at NSF on 14 February 1975.

6. Scientific potential: The potential applications of the JMOF tower in boundary layer research and in mesoscale investigations in the local area have been the subject of in-house study at NCAR in recent months.

- END OF REPORT -

RECEIVED

JAN 7 1975

RSS/R5x1

D-Colo-460022
& D-Colo-460CCC

UNITED STATES OF AMERICA

GENERAL SERVICES ADMINISTRATION

DATE: DEC 17 1974

REPLY TO ATTN OF: 8PK

Region 8
Denver Federal Center
Denver, CO 80225

SUBJECT: Notice of availability of excess real property

The real property described on the attached sheet, having been reported excess, is hereby offered to other Federal agencies for possible utilization pursuant to provisions contained in Section 202 of the Federal Property and Administrative Services Act of 1949, as amended (40 U.S.C. 483) and in accordance with procedures established by the Federal Property Management Regulations 101-47.

The purpose of this notice is to determine whether there is any further Federal Government need for this property, in the absence of which the property will be determined surplus to the needs and responsibilities of the Federal Government and disposed of in accordance with existing laws and regulations.

You are requested to advise this office not later than JAN 17 1975 in the event your agency has an interest in acquiring this property. Please communicate with this office if you desire any further information.

Director,
Real Property Division

Enclosure

NOTICE OF AVAILABILITY

1. GSA Control Numbers: D-Colo-460ZZ and D-Colo-460CCC

2. Property Identification: Former Titan "I" Missile Sites, Nos. 1 and 2

3. Property Address: Site No. 1 (725A) is located in the Southeast corner of the old Lowry Bombing Range near Bennett, Arapahoe County; Site No. 2 (725C) is located near Elizabeth, Elbert County, Colorado - location map attached.

4. Holding Agency: U. S. Army Engineer District, Omaha Corps of Engineers, Omaha, Nebraska

5. Holding Agency Use: Former Missile Sites of the Lowry Air Force Base Complex, Colorado

6. Property Data:

Site No.	Acres (fee)	Acres (easements for roadway and utilities)
1	242.42	104.49
2	53.58	23.50

Surface improvements of each site include security and boundary, fencing, hard-surfaced and gravel parking areas. (Personal property has been removed and all entrances to the underground chambers sealed).

7. Inspection: Arrangements for inspection of the missile sites are to be made by contacting Major Robert Carter, Base Civil Engineer, Lowry AFB, Colorado 80230. Phone (303) 394-2008.

8. Utilities: Electricity and telephone services available at sites.

9. Transportation: Vehicular.

10. Range of Possible Uses: Industrial, residential, agricultural, etc.

11. Restrictions: Subject to easements for public roads, highways, public utilities, railroads and pipelines.

Site No. 1 (725A) near Bennett - no major drainage course is within the site. The center of the site is the crest of a hill and the source of drainage courses that run in all directions. Each of these streams would be troublesome

11. Restrictions (cont.):

during runoff from severe rainstorms. This should be recognized in planning for the use of the site. It is suggested that any plans for development be submitted to the local regulatory jurisdiction for review with particular reference to plans for handling drainage.

Site No. 2 - the fee-owned tract is at the crest of a small mountain. The surrounding easement tracts are in the slope adjacent to the crest. There will be no flooding problem in the usual sense, but local runoff might be troublesome in some draws.

12. Reimbursement:

Reimbursement is required except where the head of an executive agency or military department, or his designee, has determined and informed GSA, pursuant to FPMR 101-47.203-7, that funds are not available for reimbursement.

A determination of the extent of reimbursement will be made and upon request will be furnished to any agency having a need for the property.

13. Expressed Interest:

Site No. 1 - University of Denver and various individuals.
Site No. 2 - Elizabeth Consolidated Schools, Elbert County, University of Denver, and various individuals.

NATIONAL EANIC AND ATMOSPHERIC ADMINI RATION

88-06(b)

R5x1

DATE: DEC 20 1974

TO: NBS Contracting Officer, 281.00

FROM: Assistant Director, RSS, R5x1 Original Signed by N. W. Stiewig

SUBJECT: Negotiation of Contract for JMOF Tower Consultant

Enclosed is the report of the Evaluation Committee for the JMOF Tower Consultant. The recommendations of the committee have been approved by the Director, ERL. I assume this clears the way for you to begin negotiations with the first firm recommended, Minasian Associates.

cc: R. T. Frost
R. W. Krinks

bcc:
R5x1 file/daily
NWStiewig/cvc/12/19/74

CODE	SURNAME	DATE	CODE	SURNAME	DATE
R5X1	NWStiewig	12/20			

NOAA FORM 61-

E COPY

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

R45x8

DATE: December 2, 1974

TO: W. N. Hess

FROM: Evaluation Committee for JMOF Tower Consultant,
R. W. Krinks, F. F. Hall, and W. H. Hooke R.W. Krinks

SUBJECT: Recommendation of Highly Qualified Firms

Using the Federal Procurement Regulations, subpart 1-4.10 for guidance, the committee has made a decision. From 28 responses to public notice of the proposed procurement of services, three firms are most highly qualified to do the job. These are ranked in order of qualification; the criteria used to make this ranking was:

1. Specialized experience in tall tower work (over 1000' tall).
2. Experience on towers less than 1000' tall.
3. Past record of performance in structural design and evaluation.
4. Capacity to perform the work within the time limitations.
5. Familiarity with tower design using digital computers.

Office of Dir.
12/3/74

DEC 3 '74 AM
D DD RSS OP
MESA WM PA

The firms are:

1. Minasian Associates
444 W. Ocean Blvd.
Long Beach, California 90802

They have extensive experience in tall tower work including investigations of recent tower failures. Minasian served as consultant on the design analysis or investigation of over 175 towers, and are considered by some peers to be the "best in the business".

2. J. S. Barrish
2131 Capitol Avenue, Suite 307
Sacramento, California 95816

Barrish has much experience in tall towers, the most recent in July. They are very familiar with the type tower which will probably be used at the JMOF.

3. Group 10 Systems
Union Bank Square
5th and Figueroa, Box 60147
Los Angeles, California 90060

Group 10 has some experience in tall towers including KOAA-TV in Pueblo. They emphasize theoretical work including earthquake risk analysis. It is a large company which has been involved in some very big projects.

These firms have been contacted (as per the FPR) and apprised of the actual services desired and the scope of the work. They are all still interested in being actively considered. Perhaps a local firm would be more convenient to work with, but none of them has recent experience in tall tower work.

Your approval of this recommendation will serve as an authorization for the contracting officer to commence negotiation, at a possible cost exceeding $10K.

cc: C. G. Little
R. T. Frost
N. Stiewig
D. Barr, Procurement

APPROVED:

for J O Fletcher
Wilmot N. Hess, Director, ERL

UPLAND INDUSTRIES
CORPORATION
SUBSIDIARY OF UNION PACIFIC CORPORATION

E. E. DODRILL
MANAGER – COMMERCIAL SALES

December 11, 1974

Mr. Merle V. Gibson
Administrative Contracting Officer
Contracting Office
U. S. Department of Commerce
National Oceanic & Atmospheric Administration
Enviornmental Research Laboratories
Boulder, Colorado 80302

Re: Weld County properties.

Dear Mr. Gibson:

As a follow-up to our phone conversation this morning:

First of all, referring to your letter of November 18, 1974, directed to this office, in which you asked that we submit a lease-purchase proposal on Section 4. Sorry, but at this time, Section 4 is not available.

Your interest now seems to have shifted to Section 10, which would be available on termination of existing leases. Basis for this office recommending Executive Committee approval of transaction on Section 10 would be:

A. One-year lease of Section 10 at the rate of $43,000 per annum with renewals on a year-to-year basis upon mutual consent and subject to re-evaluation at each renewal.

B. Granting of a one-year option to purchase the property at the rate of $600 per acre for an option consideration of an additional $2,000 payable on execution of the document. The option would be renewable subject to the mutual consent of both parties and the re-evaluation of the purchase price and option consideration at each renewal.

SUITE 1620 PRUDENTIAL PLAZA / 1050 SEVENTEENTH STREET / DENVER, COLORADO 80202
TELEPHONE (303) 572-0653
(303) 534-4141

Lease payments could be made monthly, quarterly, semi-annually or annually.

The final consideration regards Bob Frost's request to set up temporary sensing equipment on some part of Section 10 for perhaps a period of thirty days to gain preliminary indication as to just how the equipment will function. Section 10 is under lease and permission to place your equipment, of course, must be secured from the lessee. I believe there are both agricultural and mineral leases involved, so perhaps two or more parties would have to be contacted. I have requested all lease information applicable to Section 10 from our Omaha office, and should receive it probably around the 19th or 20th of December, at which time we'll know more of the details. I'll keep you posted.

Yours very truly,

E. E. Dodrill

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

December 4, 1974

OK
JAK

To : Director, R

From: Assistant Director, RSS, R5x1

Subject: Attached memorandum from the Evaluation Committee for JMOF Tower Consultant

The procurement regulations pertaining to obtaining architect-engineer services provide for establishing an evaluation board to prepare a report recommending no less than three firms which are considered highly qualified to perform a specific architect-engineer service.

On August 30, 1974, you approved nominations for such a board to make recommendations for selection of a firm to provide assistance in the preparation of specifications for the JMOF tower.

The attached memorandum is the report of that Board. The requirement was published in the Commerce Busines Daily, and from 28 responses, the Board is recommending these three firms as most highly qualified. The report appears to be in order, and I recommend your approval. Interestingly enough, the firm being recommended is one of which we had no previous knowledge and responded as a result of the Commerce Business Daily solicitation. It appears to be highly qualified, however, to meet our needs.

If you concur with the recommendation, the next step is for procurement to attempt to negotiate a suitable contract with the No. 1 firm. Only if they cannot

TRANSMITTAL FORM CD-82A (10-67)
PRESCRIBED BY DAO 214-2

R45x8

DATE: December 2, 1974

TO: W. N. Hess

FROM: Evaluation Committee for JMOF Tower Consultant,
R. W. Krinks, F. F. Hall, and W. H. Hooke RW Krinks

SUBJECT: Recommendation of Highly Qualified Firms

Using the Federal Procurement Regulations, subpart 1-4.10 for guidance, the committee has made a decision. From 28 responses to public notice of the proposed procurement of services, three firms are most highly qualified to do the job. These are ranked in order of qualification; the criteria used to make this ranking was:

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2. Experience on towers less than 1000' tall.
3. Past record of performance in structural design and evaluation.
4. Capacity to perform the work within the time limitations.
5. Familiarity with tower design using digital computers.

The firms are:

1. Minasian Associates
   444 W. Ocean Blvd.
   Long Beach, California 90802

They have extensive experience in tall tower work including investigations of recent tower failures. Minasian served as consultant on the design analysis or investigation of over 175 towers, and are considered by some peers to be the "best in the business".

2. J. S. Barrish
   2131 Capitol Avenue, Suite 307
   Sacramento, California 95816

Barrish has much experience in tall towers, the most recent in July. They are very familiar with the type tower which will probably be used at the JMOF.

3. Group 10 Systems
   Union Bank Square
   5th and Figueroa, Box 60147
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Group 10 has some experience in tall towers including KOAA-TV in Pueblo. They emphasize theoretical work including earthquake risk analysis. It is a large company which has been involved in some very big projects.

These firms have been contacted (as per the PPR) and apprised of the actual services desired and the scope of the work. They are all still interested in being actively considered. Perhaps a local firm would be more convenient to work with, but none of them has recent experience in tall tower work.

Your approval of this recommendation will serve as an authorization for the contracting officer to commence negotiation, at a possible cost exceeding $10K.

cc: C. G. Little
R. T. Frost
N. Stiewig
D. Burr, Procurement

RSS/R5x1

November 26, 1974 281.00

Mrs. Helen Lasley
1106 17th Avenue
Longmont, Colorado 80501

Dear Mrs. Lasley:

This letter will serve to further elaborate on our telephone conversation of November 25, 1974.

The National Oceanic and Atmospheric Administration has been planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. A 500-meter tower and a variety of specialized instruments will be installed on-site and will be operated on a continuous basis.

The Government has identified a number of potential sites for the laboratory. One of the sites is a section of land located Northeast of Longmont, Colorado identified as T3N, R68W, Section 7. It is our understanding that you own 80 acres of this section.

We are interested in leasing a section of land starting January 1, 1975 and continuing through December 31, 1975. It would be our intent to renew the lease on a yearly basis for up to a 20 year period. We would like the lease to contain a purchase option and, provided funds were appropriated by Congress, we would exercise the purchase option sometime during the lease period. We are asking for appropriations from Congress for our fiscal year 1977 and if approved the purchase would be made that year.

We have heard from several of the property owners and all of them have expressed an interest in leasing and/or selling their property to the Government.

We would appreciate knowing if you are interested in leasing and/or selling your land and if so, the amount you would consider for a property lease or sale.

If I can answer any questions or furnish you with any additional information, please feel free to call me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1 11-27-74
Nelder-Medrud, Jr.-NCAR

MVG/df

November 18, 1974 281.00

Mr. E. E. Dodrill
Manager-Commercial Sales
Upland Industries Corporation
Suite 1620 Prudential Plaza
1050 Seventeenth Street
Denver, CO 80202

Ref: Our letter dated October 25, 1974 (Weld County Property)

Dear Mr. Dodrill:

Thank you for your informative letter of November 8, 1974. The information contained is now being reviewed by the Government.

Our letter of October 25th identified two sections of land. We would appreciate your submitting a proposal for Section 4 if the land is available for lease or sale.

We plan to be in contact with you in the very near future. In the meantime, if you have any questions, please feel free to contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1 11-20-74
N. Medrud Jr., NCAR

MVG/df

November 15, 1974

281.00

David and Rose Macy
8829 Marathon Road
Longmont, CO 80501

Ref: Our letter dated October 25, 1974 (copy enclosed)

Dear David and Rose Macy:

The above referenced letter inquired as to your interest in leasing and/or selling your property located Northeast of Longmont, T3N, R68W, Section 7, to the Government.

We have heard from several of the property owners but to date not from you. We would appreciate knowing if you are interested and if so, the amount you would consider for a property lease or sale.

If I can answer any questions or furnish you with additional information, please contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

Enclosure

cc: Frost-R45
Stiewig-R5x1 11-20-74
Nelder Medrud Jr., NCAR

MVG/df

November 15, 1974

281.00

Messrs. Harold and Willard Leonard
Rt. 1, Box 171
Longmont, CO 80501

Ref: Our letter dated October 25, 1974 (copy enclosed)

Dear Messrs Leonard:

The above referenced letter inquired as to your interest in leasing and/or selling your property located Northeast of Longmont, T3N, R68W, Section 7, to the Government.

We have heard from several of the property owners by to date not from you. We would appreciate knowing if you are interested and if so, the amount you would consider for a property lease or sale.

If I can answer any questions or furnish you with additional information, please contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

Enclosure

cc: Frost-R45
Stiewig-R5x1 11-20-74
Nelder Medrud Jr., NCAR

MVG/df

November 15, 1974

281.00

Mr. Raymond Simpson, President
State Board of Land Commissioners
Department of Natural Resources
201 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

Ref: Our letter dated October 25, 1974, property covered by your Lease No. S-34537

Dear Mr. Simpson:

Thank you for your letter of October 30, 1974.

The Government is currently in the process of obtaining information from the various property owners.

We plan on being in contact with you in the very near future. In the meantime, if you have any questions, please feel free to contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5xl 11-20-74
Nelder Medrud, Jr., NCAR

MVG/df

November 15, 1974

281.00

Mr. Martin A. Buffo
1835 Union Drive
Lakewood, CO 80215

Ref: Our letter dated October 25, 1974

Dear Mr. Buffo:

Thank you for your letter of November 12, 1974.

The Government is currently in the process of obtaining information from the various property owners.

We plan on being in contact with you in the very near future. In the meantime, if you have any questions, please feel free to contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1 11-20-74
Medrud-NCAR

MVG/df

November 15, 1974 281.00

Mr. George M. McCaslin
1303 Longs Peak Avenue
Longmont, CO 80501

Dear Mr. McCaslin:

Thank you for your very informative letter of November 2, 1974. In answer to the questions presented in your letter, we would anticipate using a Standard Form 2 lease (copy enclosed with General Provisions SF 2-A) or one of similar format. The lease would contain a purchase option clause which would be exercised by the issuance of a purchase order. Payment would then be made within 30 days.

The Government is currently in the process of obtaining information from the various property owners. We would appreciate your submitting to this office an offer to lease your property with an option to buy.

If I can answer any questions or furnish additional information, please contact me on 499-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

Enclosures

cc: Frost-R45
Stiewig-R5x1 11-20-74
Nelder Medrud Jr., NCAR

MVG/df

November 12, 1974

U. S. Department of Commerce
National Oceanic and Atmospheric
Administration
Environmental Research Laboratories
Boulder, Colorado 80302

11/12/74

Attn: Merle V. Gibson

Dear Sir:

Referring to your letter dated October 25, 1974, I (Martin), Joe and John are interested in leasing and/or selling the property referred to in your letter.

At the present time, the land is planted in 80 acres of dry land wheat and 80 acres in summer fallow. The property normally produces 40 to 60 bushels per acre. In 1974, however, due to drought, the yield was 30 bushels per acre. I believe that it is fair to assume an average yield over 20 years of 45 bushels per acre. At the present price of wheat ($4.40 per bushel) the gross income per year from the land is approximately $16,000. Considering the inflationary factors forecast for the future, it is reasonable to assume that the return from the property over the next 20 years will average at least $20,000 per year. In addition, there is a recreational value afforded by the land: namely, hunting, hiking, horseback riding, mini-bike riding, etc.

On the above basis, we feel that the land should lease for $22,000 per year during the next 20 years with an option to buy.

At the present time, the price of good front range land is about $3,000 per acre. Although ours is dry land and therefore, not as valuable, our portion is the best one-quarter of the section and is very desirable land. Again, factoring in inflation over the next 20 years, we feel that the selling price of the land is reasonable as follows:

January 1, 1975 to January 1, 1980 . . . . $2,000/acre

January 1, 1980 to January 1, 1990 . . . . $3,000/acre

January 1, 1990 to January 1, 1995 . . . . $4,000/acre

An additional factor to be considered is that 80 acres of the land is presently planted in winter wheat for the 1975 harvest season by a tenant farmer. If your lease becomes effective January, 1975, we would expect that most of the wheat would not be damaged by your activities before the summer of 1975, and I would like the farmer to have the opportunity of harvesting the 1975 crop.

If you wish to contact me for further information you may write to me at the address below or call me on 234-3249 between the hours of 8:00 a.m. and 4:00 p.m.

Very truly yours,

Martin Buffo

MARTIN BUFFO

1835 Union Drive
Lakewood, Colorado 80215

UPLAND INDUSTRIES
CORPORATION
SUBSIDIARY OF UNION PACIFIC CORPORATION

E. E. DODRILL
MANAGER – COMMERCIAL SALES

November 8, 1974

Mr. Merle V. Gibson
Administrative Contracting Officer
Contracting Office
U. S. Department of Commerce
National Oceanic & Atmospheric Administration
Enviornmental Research Laboratories
Boulder, Colorado 80302

Re: Weld County property (your letter to this office dated October 25, 1974).

Dear Mr. Gibson:

This office would recommend the following transaction for Executive Committee approval:

A) One year lease of Section 17 at the rate of $70,000 per annum, the lease to be renewable on a year-to-year basis upon mutual consent and subject to re-evaluation each renewal.

B) Granting of a one year option to purchase the property at the rate of $1,000 per acre for an additional consideration of $2,000 payable upon execution of the document. Said option is to be renewable subject to mutual consent of both parties and to re-evaulation of the purchase price each renewal.

C) The lease payments can be made on a monthly, quarterly, annual basis, each payment becoming due at the beginning of the payment period.

SUITE 1620 PRUDENTIAL PLAZA / 1050 SEVENTEENTH STREET / DENVER, COLORADO 80202
TELEPHONE (303) 572-0653
(303) 534-4141

I trust this approach will be satisfactory to your office, and that we may proceed with its implementation.

Please give me a call if you have any further questions, and I would appreciate being advised of your decision in this matter as soon as possible.

Many thanks for your interest in Upland properties.

Yours very truly,

E. E. Dodrill

GEORGE M. McCASLIN
1303 Longs Peak Ave.
LONGMONT, COLORADO November 2, I974

U. S. Department of Commerce
Environmental Research Laboratories
Boulder, Colorado 80302
Attention Mr. Merle V. Gibson

Dear Mr. Gibson:

Received your letter, dated October 25, I974 in regard to buying or leasing the S½ of section 7, T.3N., R.68 W., Weld County, Colorado, owned by me.

First, I will advise you that the mineral rights on this land are owned by the Union Pacific Railroad.

Second, The land is currently subject to a year to year lease for farming and most of the I975 crops have been planted. The balance of the land to be cropped in I975 has been prepared for spring planting. Also, some limited preparation has been done on the land to be summer fallowed in I975 for I976 crops.

I am of course, interested in what you might have to offer, but am not familiar with the type of lease or purchase contract that government regulations would permit.

The W½ of the SW¼ of section 7 has a domestic water line now installed across, adjacent to and parallel to the west line of same, Said easement was granted with the stipulation that four (4) water taps are reserved for a ten year period ending in I984.

The subject property is free and clear of all encumbrances.

Yours Truly

George M. McCaslin

George M. McCaslin
I303 Longs Peak Ave.
Longmont, Colorado 8050I
776-II85

88-06

October 30, 1974

U. S. Department of Commerce
National Oceanic and Atmospheric
Administration
Environmental Research Laboratories
Boulder, Colorado 80302

Attn: Merle V. Gibson

Dear Sir:

In reference to your letter dated October 25, 1974 concerning T3N, R68W, Sec. 7, I wish to compliment you on your choice of potential sites for your new facility. It seems to me that this is an ideal site for the purpose.

I will furnish comments or a notice of interest after I discuss the matter with Joe and John (not Carl). I anticipate this will be in approximately two weeks.

Very truly yours,

Martin A. Buffo

Martin A. Buffo

1835 Union Drive
Lakewood, Colorado 80215

October 29, 1974

281.00

Mr. Irvin Dodrell
Upland Industries
Suite 1620 Prudential Plaza
1050 17th Street
Denver, Colorado 80203

Dear Mr. Dodrell:

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro - and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

The Government has identified a number of potential sites for the laboratory. Two sections of land owned by The Union Pacific Railroad located East of Erie, Colorado meet the above criteria. The property is identified as T1N, R68W, Section 4 and T1N, R68W, Section 17.

We are interested in proceeding with the acquisition of one section of land on a lease basis with a firm term of one year starting January 1,1975. We would like the option to renew the lease on a yearly basis for a period of twenty years. In addition, provided funds are appropriated by Congress, it would be our intent to exercise a purchase option during the period of the lease. We are asking for appropriations from Congress for our fiscal year 1977 and if approved the purchase would be made that year.

This letter constitutes an inquiry by the Government as to the availability of your land and your interest in negotiating for the lease and/or sale of the same.

If you are interested in leasing and/or selling your land to the Government, we would appreciate your furnishing this office with a notice of your interest and if possible a proposal detailing your requirements for a lease or sale.

If you require additional information, please contact the undersigned on 449-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost - R45
Stiewig - R5x1
Nelder Medrud Jr.
NCAR

MVG/mm

October 25, 1974

281.00

Mr. George H. McCaslin
1303 Longs Peak Avenue
Longmont, Colorado 80501

Dear Mr. McCaslin:

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro - and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

The Government has identified a number of potential sites for the laboratory. One of the potential sites is located Northeast of Longmont, Colorado. The property is identified as T3N, R68W, Section 7. It is our understanding that you own a portion of this section and we are currently in contact with the other owners.

We are interested in proceeding with the acquisition of one section of land on a lease basis with a firm term of one year starting January 1,1975. We would like the option to renew the lease on a yearly basis for a period of twenty years. In addition, provided funds are appropriated by Congress, it would be our intent to exercise a purchase option during the period of the lease. We are asking for appropriations from Congress for our fiscal year 1977 and if approved the purchase would be made that year.

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MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1
Nelder Medrud, Jr.
NCAR

MVG/mm

October 25, 1974

281.00

Mr. Raymond H. Simpson, President
Board of Land Commissioners
Department of Natural Resources
201 Columbine Building
1845 Sherman Street
Denver, Colorado 80203

Dear Mr. Simpson:

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro-and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

The Government has identified a number of potential sites for the laboratory. One section of land owned by the State of Colorado located East of Erie, Colorado meets the above criteria. The property is identified as T1N, R68W, Section 16.

We are interested in proceeding with the acquisition of one section of land on a lease basis with a firm term of one year starting January 1,1975. We would like the option to renew the lease on a yearly basis for a period of twenty years. In addition, provided funds are appropriated by Congress, it would be our intent to exercise a purchase option during the period of the lease. We are asking for appropriations from Congress for our fiscal year 1977 and if approved the purchase would be made that year.

cc: B. Frost
9/27/76

This letter constitutes an inquiry by the Government as to the availability of your land and your interest in negotiating for the lease and/or sale of the same.

If you are interested in leasing and/or selling your land to the Government, we would appreciate your furnishing this office with a notice of your interest and if possible a proposal detailing your requirements for a lease or sale.

If you require additional information, please contact the undersigned on 449-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost - R45
Stiewig - R5x1
Nelder Medrud Jr.
NCAR

MVG/mm

October 25, 1974

281.00

David and Rose Macy
8829 Marathon Road
Longmont, Colorado 80501

Dear David and Rose Macy:

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro - and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

The Government has identified a number of potential sites for the laboratory. One of the potential sites is located Northeast of Longmont, Colorado. The property is identified as T3N, R68W, Section 7. It is our understanding that you own a portion of this section and we are currently in contact with the other owners.

We are interested in proceeding with the acquisition of one section of land on a lease basis with a firm term of one year starting January 1,1975. We would like the option to renew the lease on a yearly basis for a period of twenty years. In addition, provided funds are appropriated by Congress, it would be our intent to exercise a purchase option during the period of the lease. We are asking for appropriations from Congress for our fiscal year 1977 and if approved the purchase would be made that year.

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If you are interested in leasing and/or selling your land to the Government, we would appreciate your furnishing this office with a notice of your interest and if possible a proposal detailing your requirements for a lease or sale.

If you require additional information, please contact the undersigned on 449-1000, ext. 3511.

Sincerely yours,

[redacted]
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1
Nelder Medrud Jr., NCAR

MVG/mm

98-06

RECEIVED

OCT 29 1974

RSS/R5x1

October 25, 1974

Messrs. Joe F., Martin and Carl Buffo
1835 Union M.
Lakewood, Colorado 80215

Dear Messrs. Buffo:Mr.

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro - and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

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October 28, 1976

This letter constitutes an inquiry by the Government as to the availability of your land and your interest in negotiating for the lease and/or sale of the same.

If you are interested in leasing and/or selling your land to the Government, we would appreciate your furnishing this office with a notice of your interest and if possible a proposal detailing your requirements for a lease or sale.

If you require additional information, please contact the undersigned on 449-1000, ext. 3515.

Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1
Nelder Medrud Jr., NCAR

MVG/mm

October 25, 1974

281.00

Messrs. Harold and Willard Leonard
Rt. 1, Box 171
Longmont, CO 80501

Dear Messrs. Harold and Willard Leonard:

The National Oceanic and Atmospheric Administration has been engaged for the past several months in planning for a proposed field laboratory to be known as a Joint Meteorological Observing Facility. The laboratory is intended to occupy a section of relatively flat land sufficiently east of the Front Range to minimize the influence of the mountain chain on airflow, while at the same time remaining within a 30-45 minute commuting range of Boulder. It will be characterized by a variety of in situ and remote sensors, including a 500-meter meteorological tower. Ten levels on the tower will be instrumented with conventional and custom special sensors and will, additionally, accommodate a variety of specialized instruments for specific research or development purposes. The tower, plus a significant array of other instruments, will be installed on-site and operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to provide a data base for research into the specific micro - and mesometeorological processes which characterize the site. Other observing systems will be operated in support of both research and development, and for airborne calibration of aircraft instrumentation.

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Sincerely yours,

MERLE V. GIBSON
Administrative Contracting Officer
Contracting Office

cc: Frost-R45
Stiewig-R5x1
Nelder Medrud Jr., NCAR

MVG/df

NATION[illegible] OCEANIC AND ATMOSPHERIC AD[illegible]STRATION

]

E: October 18, 1974

NBS Contracting Officer, 281.01

M: Assistant Director, Research Support Services, R5x1

JECT: Acquisition of Land for a NOAA NCAR Joint Meteorological Observing Facility (JMOF)

several months we have been engaged in planning with NCAR for a proposed field oratory, to be known as a Joint Meteoroligical Observing Facility. It is ended to occupy a section of relatively flat land sufficiently east of the Front ge to minimize the influence of the mountain chain on airflow, while at the same e remaining within a 30-45 minute commuting range of Boulder. It will be charac- ized by a variety of in situ and remote sensors, including a 500-meter eorological tower. Ten levels on the tower will be instrumented with conventional custom special sensors and will, additionally, accommodate a variety of specialized truments for specific research or development purposes. The latter, plus a nificant array of other instruments, will be installed on-site and operated tinuously to provide definition of the atmospheric environment for instrument ting purposes and to provide a data base for research into the specific micro - and ometeorological processes which characterize the site. Other observing systems l be operated on an ad hoc basis in support of both research and development, and airborne calibration of aircraft instrumentation.

losed is a copy of a "Report of Recommendations for a Meteorological Observing lity to be operated jointly by the National Oceanic and Atmospheric Administration AA) and the National Center for Atmospheric Research (NCAR)" dated July 1974, the full report and a summary document.

order to identify potential sites for the JMOF, a Site Survey Committee was inted by the Director of the Wave Propagation Laboratory. This team reviewed ographical maps to identify areas having most nearly flat terrain features. Areas ntified in this manner were surveyed by air, and a ground survey was then made of e sites considered to be most promising. In this way, a selection was made of sites considered to most nearly meet the siting criteria for the JMOF. In sidering available sites, contact was made both with the Bureau of Land Management the General Services Administration to determine availability of Government land. was available within the area under consideration. The four sites are identified

CODE	SURNAME	DATE	CODE	SURNAME	DATE
R5x1	[signature]	10/21			

E COPY

NOAA FORM 61-

as follows:

Site A - TIN R68W Section 4, located NE of Erie
Owner - Union Pacific
Contact - Irvin Dodrell
Upland Industries
Suite 1620 Prudential Plaza
1050 17th Street
Denver, CO 80302

Site I - TIN R68W Section 17, located immediately East of Erie
Owner - Union Pacific
Contact - (Same as above)

Site J - TIN R68W Section 16, located East of Erie
Owner - State Land Board
Contact - Raymond H. Simpson, President
Board of Land Commissioners
Department of Natural Resources
201 Columbine Building
1845 Sherman Street
Denver, CO 80203

Site E - T3N R68W Section 7, located NE of Longmont
Owners - a) George M. McCaslin (318a)
1303 Longs Peak Avenue
Longmont, CO 80501

b) Joe F. Buff, Martin, Carl (160a)
1835 Union M.
Lakewood, CO 80215

c) David and Rose Macy
8829 Marathon Road
Longmont, CO 80501
(each owner 40a)

d) Harold and Willard Leonard (80a)
RT 1 Box 171
Longmont, CO 80501

Approval has been received from the Department of Commerce to proceed with acquisition of the land. We are including a line item in the NOAA budget for fiscal year 1977 to purchase the land. In the meantime, we would like to proceed with acquisition on a lease basis with a firm term of one year beginning January 1, 1975, and with options for yearly renewals through 1980, as a minimum, or through 1985 if possible. The lease should also include an option for purchase at a negotiated pre-determined price with provision for escalation if necessary.

An opinion has been received from a Staff Attorney for NOAA, that the proposed meteorological tower can be placed on the leased premises on the basis that it is de-mountable and could thus be removed, and would remain the property of the Government. A permanent building, planned by NCAR, is included in their fiscal year 1977 budget and would not be added to the facility until the purchase of the land by the Government had been completed.

We would like to proceed at this time with land acquisition by lease as outlined above, and request that solicitation letters be prepared and issued to the current owner (s) of the four tracts identified, as the initial step toward negotiating a suitable lease.

Enclosures (2)

bcc:
R5
R5x1 file/daily
NWStiewig/cvc/10-18-74

cc: Medrud, Jr
Bob Furst

NWS. for your files. C

RECEIVED
OCT 16 1974
RSS/R5x1

OWNERSHIP OF POTENTIAL JMOF SITES

Site A - TIN R68W Section 4, located NE of Erie

Owner - UP Union Pacific
Contact - Irvin Dodrell
Upland Industries
Suite 1620 Prudential Plaza
1050 17th Street
Denver, Colorado 80302

Site I - TIN R68W Section 17, located immediately East of Erie

Owner - UP (same as above)

Site J - TIN R68W Section 16, located East of Erie

Owner - State Land Board
*Contact

Site E - T3N R68W Section 7, located NE of Longmont

Owners:

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1303 Longs Peak Avenue
Longmont, Colorado 80501

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Lakewood, Colorado 80215

c) David & Rose Macy
8829 Marathon Road
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(each owner 40a)

d) Harold & Willard Leonard (80a)
Rt 1 Box 171
Longmont, Co 80501

ymond H. Simpson, President
rd of Land Commissioners
artment of Natural Resources
Columbine Building
5 Sherman Street
ver, CO 80203

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302

October 3, 1974

JMOF Planners

F. F. Hall
JMOF Expediter

F. F. Hall

Preparation of Detailed JMOF Specifications

We have been given approval by the Department of Commerce and NOAA Headquarters to proceed with the acquisition of a land lease for the JMOF. The release of FY'75 funds for the facility has also been promised by the end of this month. Therefore, we need to proceed with the formal steps of land acquisition and of generating firm specifications for the tower and instrumentation. To this end, the following four working panels are established:

1. Land Acquisition Panel - Robert Frost, Chairman, Nathan Stiewig, Nelder Medrud, Merle Gibson. The function of this panel will be to obtain lease with option to buy monetary requirements from the present owners of the several suitable sections of land which have already been chosen as possible JMOF sites.

2. Tower, Structures, and Facility Panel - Robert Krinks, Chairman, Bradford Bean, Al Samson, and Paul Moore. This panel will be responsible for developing the specifications for the 500 m tower including the structural design, instrumentation supports, instrument carriage, and man carrying elevator.

3. Tower Instrumentation Panel - Harold Baynton, Chairman, Al Bedard, Shelby Frisch, Gerry Ochs, Terry McNice, Rudolf Pueschel, and Gary Herbert. This panel will determine specifications (or specify if sole source sensors are preferable) for measuring wind, temperature, humidity, and pressure at the various tower levels.

4. Data Processing and Recording Panel - Mike Evans, Chairman, Robert Lawrence, Fred Brock, Carroll Campbell, and Mike Bottomley. This panel will have the responsibility of specifying data processing, transmission, and recording sub-systems at the facility.

Each of the panels will be expected to get together as long as necessary to develop these specifications and prepare a report, backed up by an oral presentation, for all interested Boulder Community JMOF users, by mid-November. When all JMOF interested parties have reached the concensus that the specifications are ready for release, the four ad hoc panels will have completed their primary responsibility and there should be no further requirements on their time unless difficulties or changes arise because of procurement problems.

cc: JMOF Planners

The Assistant Secretary for Administration
Washington, D.C. 20230

OCT 1

September 30, 1974

MEMORANDUM FOR: Mr. William Ryland

SUBJECT: Approval to Acquire Land

This is in reference to your memorandum of August 28, 1974, requesting approval to acquire land for the joint NOAA-NCAR Meteorological Observing Facility in the State of Colorado.

You may proceed with the acquisition of the necessary land, approval being based on existing legislation authorizing NOAA to "acquire land" for such facilities.

Every effort should be made to utilize existing Government owned land prior to acquisition by lease or purchase.

This office will appreciate receiving copies of any and all documents pertaining to such acquisition.

Howard T. Spicer, Chief
Property and Records Division
Office of Administrative Services

9-27-74

Wayne Miller, GSA Region 8 called to advise he had discussed our land acquisition (lease) for the IMOF with Don Luikens, Chief Acquisition Branch, who agreed that the proposed facility would be special purpose, and we could go ahead with a lease on our own.

Jim L.

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302
R45

Date : August 30, 1974

RECEIVED
SEP 4 1974
RSS/R5x1

To : W. N. Hess, Director
Environmental Research Laboratories

From : C. G. Little, Director
Wave Propagation Laboratory
C G Little

Subject: Nominations to Board of Review for Bid Selection for Engineering Consulting Services

Purchase and erection of the proposed JMOF tall tower will involve us in an engineering specialty beyond our experience. Therefore, I propose to engage a professional firm to act as our consultants.

I nominate the following persons to serve on a panel to review responses to a request for professional services. The panel will recommend selection for the contract.

Freeman Hall

William Hooke

Robert Krinks

Approved
Original Signed By
Wilmot N. Hess

W. N. Hess, Director
Environmental Research Laboratories

Date

cc: N. Stiewig 9-5-74
H. Roettenbacher

RW-5-0076

National Oceanic and Atmospheric Administration
ENVIRONMENTAL RESEARCH LABORATORIES
Boulder, Colorado 80302
R45

- Pink Copy -

Date : August 30, 1974

To : W. N. Hess, Director
Environmental Research Laboratories

From : C. G. Little, Director
Wave Propagation Laboratory
CGLittle

Subject: Nominations to Board of Review for Bid Selection for Engineering Consulting Services

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I nominate the following persons to serve on a panel to review responses to a request for professional services. The panel will recommend selection for the contract.

Freeman Hall

William Hooke

Robert Krinks

Approved.

WNHess — Sept 4

W. N. Hess, Director
Environmental Research Laboratories

Date

cc: N. Stiewig
H. Roettenbacher

RWS-0076

shall be published in the Synopsis. The notice shall be prepared in accordance with § 1-1.1003-7(b) (9) and shall solicit submission of Standard Form 251 from persons or firms that are eligible for consideration and that do not have current data on file with the procuring agency or office. The notice will be published sufficiently in advance to enable the architect-engineer firms to submit to the procurement office a general statement of qualifications and performance data applicable to the expected requirements of that procurement office. Synopses of contract awards shall be in accord with § 1-1.1004.

(d) *Architect-engineer and related services with fees $25,000 and under.* Agencies may employ the procedures in paragraph (c) above. In the alternative, however, agencies may publicize each contract estimated to be $25,000 and under only in the area where the project is to be performed.

b. Section 1-1.1003-7(b) is amended to add subparagraph (9) as follows:

§ 1-1.1003-7 Preparation and transmittal.

* * * * *

(9) *Architect-engineer services project notice.* Each notice publicizing procurement or architectural and/or engineering services shall be headed "R. Architect-Engineer Services." The project shall be listed with a brief statement as to its location, scope of services required and, where applicable, the construction cost limitation. Appropriate statements will be made to indicate any limitations on eligibility for consideration. Qualifications or performance data required from architect-engineer firms will be described. This shall be followed by statements similar to the following: "Architect-engineer firms which meet requirements described in this announcement are invited to submit a complete Standard Form 251, U.S. Government Architect-Engineer Questionnaire, together with any supplemental data, to the procurement office shown below. Firms having a current Standard Form 251 already on file with this procurement office and those responding to this invitation before (*date*) will be considered for selection, subject to any limitations indicated with respect to size of firm, specialized technical expertise or other requirements. No other general notification to firms under consideration for this project will be made, and no further action beyond submission of Standard Form 251 and photographs is required or encouraged. Following an initial evaluation of the qualifications and performance data described on the Standard Form 251, three or more firms considered to be the most highly qualified to provide the services required will be chosen for interview. This is not a request for a proposal. Annual statements; Proposed Commerce Business Daily numbered note. Firms desiring automatic consideration for all projects administered by the procurement office (subject to specific requirements for individual projects) are encouraged to submit annually a statement of qualifications and performance data, utilizing Standard Form 251." The name of the responsible procurement office shall then be shown complete with the full address and telephone number.

PART 1-4—SPECIAL TYPES AND METHODS OF PROCUREMENT

c. Subpart 1-4.10 is added, as follows:

Subpart 1-4.10—Architect-Engineer Services

Sec.

AUTHORITY: Public Law 92-582 dated October 27, 1972; as amended the Federal Property and Administrative Services Act of 1949; as amended, 40 U.S.C. 471 et seq.

Subpart 1-4.10—Architect-Engineer Services

§ 1-4.1000 Scope of subpart.

This subpart contains the general policies and procedures for the procurement of professional architect-engineer services, either individually or together, by contract.

§ 1-4.1001 General policy.

Pursuant to Public Law 92-582 dated October 27, 1972, which amended the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471, et seq.), it is the policy of the Federal Government to publicly announce all requirements for architect-engineer services, and to negotiate contracts for architect-engineer services on the basis of demonstrated competence and qualification for the type of professional services required and at fair and reasonable prices.

§ 1-4.1002 Definitions.

(a) "Firm" means any individual, firm, partnership, corporation, association, or other legal entity permitted by law to practice the professions of architecture or engineering.

(b) "Agency head" means the Secretary, Administrator, or head of a department, agency, or bureau of the Federal Government.

(c) "Architect-engineer services" include those professional services of an architectural or engineering nature as well as incidental services that members of those professions and those in their employ may logically or justifiably perform as described in § 1-16.702.

§ 1-4.1003 Public announcements.

To assure the broadest publicity concerning the Government's interest in obtaining architect-engineer services, each agency head shall develop notices in accordance with § 1-4.1003 with respect to individual projects.

§ 1-4.1004 Selection.

§ 1-4.1004-1 Establishment of architect-engineer evaluation boards.

Each agency head shall establish one or more architect-engineer evaluation boards to be composed of an appropriate number of members who, collectively, have experience in architecture, engineering, construction, and related procurement matters. Members shall be appointed from among highly-qualified professional employees and/or private practitioners engaged in the practice of architecture or engineering. One member of each board shall be designated as the chairman.

§ 1-4.1004-2 Functions of the evaluation boards.

Agency architect-engineer evaluation boards shall perform the following functions:

(a) Collect and maintain current data files on architect-engineer firms, including information on the qualifications of their members and key employees and past experience on various types of construction projects. U.S. Government Architect-Engineer Questionnaire, Standard Form 251, supported by required photographs shall be used for this purpose. Information from other sources (such as other clients, other members of the profession, managers or occupants of facilities previously designed, assessments by the procuring agency itself on prior projects awarded to a firm) may also be included in the files;

(b) When procurement of architect-engineer services is proposed, the board shall review the data files on eligible firms including files established on receipt of a Standard Form 251 in response to the public notice of a particular contract, and shall evaluate the firms in accordance with § 1-4.1004-3. After making this review and technical evaluation, the board shall hold discussions with not less than three of the most qualified firms regarding anticipated concepts and relative utility of alternative methods of approach for furnishing the required services; and

(c) Prepare a report for submission to the agency head recommending no less than three firms which are considered

highly qualified to perform the required services. This report shall include in sufficient detail the extent of the evaluation and review and the considerations upon which the recommendations were based.

§ 1–4.1004–3 Evaluation criteria.

In evaluating architect-engineer firms, the architect-engineer evaluation board shall apply the following criteria, other criteria established by agency regulation, and any criteria set forth in the public notice on a particular contract:

(a) Specialized experience of the firm (including a joint venture or association) with the type of service required;

(b) Capacity of the firm to perform the work (including any time limitations);

(c) Past record of performance on contracts with Government agencies and private industry with respect to such factors as control of costs, quality of work, and ability to meet schedules;

(d) Familiarity with the area in which the project is located; and

(e) Volume of work previously awarded to the firm by the agency, with the object of effecting an equitable distribution of architect-engineer contracts among qualified firms. Each architect-engineer evaluation board shall give, to the fullest extent practicable, favorable consideration to otherwise qualified firms (including small businesses) that have not had prior experience on Government projects.

§ 1–4.1004–4 Action by agency head or his authorized representative.

(a) The agency head (or the responsible official to whom the authority has been delegated) shall review the recommendations of the architect-engineer evaluation board and shall, in concert with his principal technical representatives, develop and approve, in order of preference, a listing of the three most highly qualified firms, based upon the criteria in § 1–4.1004–3.

(b) The agency head or other authorized official shall advise the board of his decision which will serve as an authorization for the contracting officer to commence negotiation.

§ 1–4.1004–5 Procedure for procurement estimated not to exceed $10,000.

When authorized by the agency head, one of the following procedures set forth in paragraphs (a) and (b) of this section may be used in lieu of the procedures prescribed by § 1–4.1004–2 (b) and (c) and actions prescribed by § 1–4.1004–4.

(a) *Selection by the board.* After reviewing and evaluating architect-engineer firms in accordance with § 1–4.1004–2(b), the board will prepare a report for submission to the contracting officer listing in the order of preference, a minimum of 3 firms which are considered the best qualified to perform the required services. This report will include sufficient details as to the extent of the evaluation and review made and the considerations upon which the selection is based. Further, the report will serve as an authorization to the contracting officer to commence negotiation with the highest qualified firm.

(b) *Selection by the chairman of the board.* When, in the judgment of the chairman of the board, it is considered that board action is not required in connection with a particular selection of architect-engineer firms, the following procedures will be followed:

(1) The chairman of the board will perform the functions required under § 1–4.1004–2(b);

(2) The chairman of the board will prepare a report in the same manner as prescribed by § 1–4.1004–2(c) except that the report will be submitted to the agency head's representative for concurrence;

(3) The agency head's representative will review the report and concur with the selection or return the report to the chairman for such action as he may consider necessary; and

(4) Upon receipt of an approved report, the chairman of the board will furnish the contracting officer a copy of the report which will serve as an authorization to commence negotiation.

§ 1–4.1005 Negotiation procedures.

§ 1–4.1005–1 General.

(a) Each agency head is responsible for negotiation of contracts for architect-engineer services. This responsibility may be delegated to a contracting officer. The contracting officer shall use the services of technical, legal, auditing, pricing, and other specialists in the agency to the extent deemed appropriate. Negotiations shall be directed toward:

(1) Making certain that the architect-engineer has a clear understanding of the essential requirements;

(2) Determining that the architect-engineer will make available the necessary personnel and facilities to accomplish the work within the required time;

(3) Determining, where applicable, whether the architect-engineer can provide the design for construction of the facility at a cost not to exceed the limit established for the project; and

(4) Reaching mutual agreement on the provisions of the contract, including a fair and reasonable price, for the required work.

(b) For public works and utilities projects, the amount of the fee that may be paid to an architect-engineer firm under a cost-plus-a-fixed-fee contract for the production and delivery of the designs, plans, drawings, and specifications may not exceed 6 percent of the estimated construction cost of such project, exclusive of the amount of such fee (see 41 U.S.C. 254). The statutory limitation shall also apply to the fee paid to an architect-engineer for the performance of such services under a fixed-price contract. This limitation shall be applied on an individual contract basis.

§ 1–4.1005–2 Conduct of negotiations.

Negotiations shall be conducted initially with the architect-engineer firm given first preference under the procedures set forth in § 1–4.1004. If a mutually satisfactory contract cannot be negotiated with such firm, the negotiations shall be formally terminated and the firm notified. Negotiations then shall be initiated with the next-ranked listed firms in the order of preference and this procedure shall be continued until a mutually satisfactory contract has been negotiated. If negotiations fail with the listed firms, additional firms shall be selected in accordance with § 1–4.1004 and negotiations shall continue in the manner described above.

§ 1–4.1005–3 Independent Government estimate.

Prior to the initiation of negotiations, the contracting officer shall develop an independent Government estimate of the cost of the required architect-engineer services, based on a detailed analysis of the costs expected to be generated by the work. Consideration shall be given to the estimated value of the services to be rendered, the scope, complexity, and the nature of the project. The independent Government estimate shall be revised as required during negotiations to reflect changes in, or clarification of, the scope of the work to be performed by the architect-engineer. A cost estimate, based on the application of percentage factors to cost estimates of the various segments of the work involved, e.g., construction project, may be developed for comparison purposes, but such a cost estimate shall not be used as a substitute for the independent Government estimate.

§ 1–4.1005–4 Architect-engineer's proposal.

The contracting officer shall request the selected architect-engineer firm to submit its proposal with supporting cost or pricing data in accordance with § 1–3.807. Revisions of the proposal and supporting cost or pricing data may be made as required during negotiations to reflect changes in, or clarification of, the scope of the work to be performed by the architect-engineer or findings derived from pre-award audits conducted pursuant to § 1–3.809.

§ 1–4.1005–5 Contract price.

Subject to the provisions of § 1–4.1005–1(b), the contracting officer shall negotiate a contract price considered fair and reasonable based on a comparative study of the independent Government estimate and the architect-engineer's proposal. Significant differences between elements of the two figures and between the overall figures shall be discussed and the contracting officer shall satisfy himself as to the reasons therefor.

§ 1–4.1005–6 Record of negotiation.

Promptly at the conclusion of each negotiation, a memorandum setting forth the principal elements of the contract shall be prepared for use by the reviewing authorities and for inclusion in the contract file. The memorandum shall contain sufficient detail to reflect the significant considerations controlling the

establishment of the price and other terms of the contract.

§ 1–1.1006 Contracting for construction work.

§ 1–1.1006–1 Policy.

The award of a contract for architect-engineer services for a particular project and the award of a contract for the related construction work to the same firm, a parent firm, its subsidiaries or affiliates is prohibited except as otherwise provided by § 1–18.112.

§ 1–1.1006–2 Procedure.

An architect-engineer firm selected for negotiation of an architect-engineer services contract shall be advised of the policy set forth in § 1–4.1006–1 prior to the initiation of negotiations. If the firm possesses construction capabilities either within its own organization or through a parent firm, subsidiaries or affiliates, the firm shall have the option of either:

(a) Declining to enter into contract negotiations in order for its parent firm, subsidiaries, or affiliates to be eligible to compete for the related construction contract; or

(b) Entering into contract negotiations with the clear understanding that, if such negotiations are successful, its parent firm, subsidiaries, or affiliates will be ineligible to compete for the related construction contract.

§ 1–1.1007 Small business.

The policy of the Government that a fair proportion of contracts for services be awarded to small businesses is applicable without qualification to the award of contracts for architect-engineer services. In complying with this requirement, the provisions of Subpart 1–1.7 shall be followed.

PART 1–18—PROCUREMENT OF CONSTRUCTION

d. Subpart 1–18.1 is amended to add a new section as follows:

§ 1–18.113 Architect-engineer services contracts.

Policies and procedures applicable to architect-engineer services contracts are set forth in Subpart 1–4.10 of this title.

ARTHUR F. SAMPSON,
Acting Administrator of General Services.

MARCH 23, 1973.

[FR Doc.73-6026 Filed 3-28-73;8:45 am]

CHAPTER 114—DEPARTMENT OF THE INTERIOR

MISCELLANEOUS AMENDMENTS TO CHAPTER

Pursuant to the authority of the Secretary of the Interior contained in 5 U.S.C. 301 and section 205(c), 63 Stat. 390; 40 U.S.C. 486(c), Subparts 114–1.1, 114–3.1, 114–3.2, 114–25.3, 114–26.6, 114–38.53, 114–42.2, 114–45.1, 114–45.3, 114–45.6, 114–46.4, 114–47.3, and subsection 114–45.000 of Chapter 114, Title 41 of the Code of Federal Regulations are amended as set forth below.

Since this regulation merely corrects the title of a departmental official and an Office of the Department it is determined that the rulemaking procedure is unnecessary and these amendments shall become effective on March 29, 1973.

CHARLES F. EMLEY,
Deputy Assistant Secretary of the Interior.

MARCH 23, 1973.

PART 114–1—INTRODUCTION

Subpart 114–1.1—Regulations System

Section 114–1.100 is revised as follows:

§ 114–1.100 Deviation.

Deviations from mandatory provisions of FPMR (as provided in 41 CFR 101–1.110) and IPMR shall be kept to a minimum. Deviations in both individual cases and classes of cases must be approved in advance by the Assistant Secretary—Management. Requests for approval of such deviations shall be submitted by the heads of Bureaus and Offices to the Assistant Secretary—Management, citing the specific part of FPMR or IPMR from which it is desired to deviate, setting forth the nature of the deviation and the reasons for the action requested.

PART 114–3—ANNUAL REAL PROPERTY INVENTORIES

Subpart 114–3.1—General Provisions

Section 114–3.105 is revised as follows:

§ 114–3.105 Agency liaison.

The Director of Management Operations, Office of the Assistant Secretary—Management, is the designated agency representative for this Department for liaison with the General Services Administration on matters related to the owned and leased real property inventories. Any questions concerning these inventories shall be referred to him for handling.

Subpart 114–3.2—Annual Report Real Property Owned by the United States

In § 114–3.206 the first paragraph is amended as follows:

§ 114–3.206 Preparation and due dates.

The annual inventory report on GSA Forms 1166 and 1309 shall be prepared as of June 30 each year and transmitted to reach the Director of Management Operations, Office of the Assistant Secretary—Management, by not later than August 21, in the number of copies indicated below:

* * * * *

PART 114–25—GENERAL

Subpart 114–25.3—Use Standards

In § 114–25.350 the last paragraph is amended as follows:

§ 114–25.350 Standard lettering for bench marks and corner markers.

* * * * *

Exceptions to the use of the foregoing lettering will be granted only where special circumstances warrant exemption. Requests for such exemption shall be transmitted through Bureau channels to the Director, Office of Management Operations, Office of the Assistant Secretary—Management.

PART 114–26—PROCUREMENT SOURCES AND PROGRAMS

Subpart 114–26.6—Procurement Sources Other Than GSA

In § 114–26.600–50 the last paragraph is revised to read:

§ 114–26.600–50 Procurement of tax free alcohol.

* * * * *

Requests for any additional permits should be submitted through Bureau channels to the Director of Management Operations, Office of the Assistant Secretary—Management, for transmittal to the Internal Revenue Service.

PART 114–38—MOTOR EQUIPMENT MANAGEMENT

Subpart 114–38.53—Aircraft

Section 114–38.5312(d) is amended as follows:

§ 114–38.5312 Official use of aircraft.

* * * * *

(d) In the event there is occasion to transport unofficial passengers not specifically identified above, the circumstances should be submitted to the Assistant Secretary—Management, with a request for a decision concerning waiver requirements. Should such an occasion arise under emergency conditions which will not permit advance consideration, a waiver shall be obtained from the individual or individuals involved.

PART 114–42—PROPERTY REHABILITATION SERVICES AND FACILITIES

Subpart 114–42.2—Property Rehabilitation Services Performed by Federal Facilities

In § 114–42.203(a) the first paragraph is revised to read as follows:

§ 114–42.203 Notifications.

(a) Should any bureau or office determine that (1) additional rehabilitation facilities are needed to perform required services or (2) that operation of existing facilities is to be discontinued, the prior information required by FPMR 101–42.203 should be embodied in a letter, prepared for the signature of the Assistant Secretary—Management, and addressed to:

* * * * *

PART 114–45—SALE, ABANDONMENT, OR DESTRUCTION OF PERSONAL PROPERTY

In § 114–45.000, paragraph (b)(1) is amended as follows:

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Rockville, Md. 20852

Date : August 29, 1974

RECEIVED
SEP 5 1974
RSS/R5x1

To : William Ryland
Real Property Office

From : James K. White
Staff Attorney

Subject: Request for Approval to Acquire Land for a Joint NOAA-NCAR Meteorological Observing Facility

Decisions of the Comptroller General generally have held that appropriated funds may not be used for the permanent improvement of privately owned property by an agency of the United States without express statutory authority therefor. 47 CG 61, 46 CG 24.

However, in the present case, according to the facts as set forth in the August 7 memorandum of W. N. Hess, Director of the Environmental Research Laboratories, the tower will be "de-mountable and could thus be removed (though at significant cost) in the event the lease were terminated". In regard to non-permanent Government structures on private land, the Comptroller General has held that the General rule against the erection of improvements on leased land does not prohibit the erection on leased premises of necessary temporary structures and facilities where such structures remain the property of the Government and the Government reserves the right to remove them at the expiration of the lease. 15 Comp. Gen. 761; 20 Comp. Gen. 927; 30 Comp. Gen. 715.

Therefore, according to the facts as stated in the Director's memorandum, this de-mountable tower may be installed upon leased land, provided there be inserted in the lease a specific provision retaining title thereto in the United States with the privilege of removal.

For your info.
Shirley advised 8/29/74

AUG 7 1974

J. W. Townsend, Jr., Associate Administrator
National Oceanic and Atmospheric Administration

W. N. Hess, Director
Environmental Research Laboratories

Original Signed By
Wilmot N. Hess

Request for Approval to Acquire Land for a Joint NOAA-NCAR Meteorological Observing Facility

I am forwarding for your consideration a Report of Recommendations for a Meteorological Observing Facility to be operated jointly by NOAA and the National Center for Atmospheric Research (NCAR).

To this report, I would like to add the following comments. Obviously, any atmospheric remote sensing research group requires a well-instrumented field site where it can test and evaluate its remote sensing systems. Experience shows that this site should include a tall meteorological tower. As a result of a series of events, the Wave Propagation Laboratory is now faced with almost a crisis situation relative to its field sites, and must create a new field site near Boulder. The Joint Meteorological Observing Facility (JMOF) is designed to meet the joint needs of NOAA and NCAR in two ways - as a unique, flexible, and well instrumented field site "test-bed" for the development, testing, evaluation, and calibration of in-situ and remote sensing instrumentation; and as a flexible and well instrumented site for the atmospheric research appropriate to its location. By pooling their complementary resources each agency benefits from the total observational capability at minimum cost to itself; in addition, a much broader and fuller utilization of the total potential of the facility is achieved.

Without the new facility, WPL's remote sensing research would be greatly handicapped, since we have lost our Gunbarrel Hill meteorological tower site, and are left only with the distant and unsatisfactory Haswell site. Research would be slowed, and costs to achieve a given amount of progress would rise, both in NOAA and in NCAR. Thus, the implications of not being able to achieve the JMOF (including its meteorological tower) are inefficient remote sensing research, and unnecessary duplication of expensive facilities by NOAA and NCAR.

If we are able to meet our schedule, we need authorization at this time to proceed with site acquisition. A joint NOAA/NCAR site survey group has identified several sites in the vicinity of Boulder (35 to 50 minutes driving time) that meet the siting criteria of the Report. In order to provide land for guying the meteorological tower, and to provide environmental protection for the site, it has been determined that we should

attempt to acquire a full section (640 acres) of land. Preliminary discussions with land owners by a GSA appraiser have established present estimated purchase costs in the range of $700 to $1500 per acre for the sites under consideration, depending upon distance from Boulder, and whether or not mineral rights are included. The total value of some sites is strongly influenced by potential mineral resources.

Since our funding for purchase will not appear in the budget until fiscal year 1977, we will not be able to enter into an agreement for outright purchase at this time. Present planning is predicated on the assumption that we would attempt negotiation of a lease for the land on a one year basis, with option to renew for five years, and a further option for the Government to purchase the land at any time during the lease period. On this basis, we can proceed with acquisition of the site immediately; GSA approval for long-term leasing authority is not necessary; and availability of the land when funds become available is assured. At the time of lease, we would attempt to reach agreement on purchase price in the event the purchase option was exercised. However, with current rising land value, some sort of escalation provision would likely be necessary.

We do not believe that actual purchase is necessary for placement of the meteorological tower, since it will be de-mountable and could thus be removed (though at significant cost) in the event the lease were terminated. However, we think eventual purchase is desirable since the minimum expected useful life of the facility is at least twenty years. Furthermore, the Observing Facility Building proposed by NCAR will be a permanent-type improvement requiring approximately (and thus ownership) of twenty acres. The permanent NCAR Observing Facility will not be constructed by NCAR until title to the land is acquired; until this is done, only the tower, temporary type shelters and essential support facilities (road, power, electrical, sanitary) are planned.

ERL/WPL propose to purchase by competitive bids a 500 m tower erected at an estimated cost of $550,000 if ordered this year. The temporary type shelters and essential support facilities (road, power, electrical, sanitary) will cost under $40,000. Funds for the tower and support facilities are planned largely through reprogramming remote sensing resources over a two fiscal year period. These resources are assumed to include the $650,000 increase available to WPL during FY 74. An FY 76 budget request is outstanding for 3 positions, $290,000 to instrumant the tower.

On the basis of the above, approval is requested to enter into formal negotiations with land owners for lease of approximately one section of land to accommodate the Joint Meteorological Observing Facility, such lease to contain an option for yearly renewals for five years, and an option for purchase at anytime during the period of the lease or extensions thereof. Final lease arrangements will be subject to NOAA Headquarters approval.

I regard the acquisition of this field site as essential to the Health of WPL, and of major benefit to ERL and NCAR. If you have any questions relative to this concept, please let me know; if you wish, I will be very happy to give you a briefing on it. Your support of this acquisition is earnestly requested.

Attachments: 2 Reports of Recommendation for a JMOF
cc: Director, WPL, R45
bcc: AA for A, AD
Chief, AOD, AD1
Chief, ASD, R58
R. Serafin, NCAR

RDL 8/5

17

Upland Industries (Well) Dodsville — 7-26-74
A4 form Omaha — Richter

development site 300' x 300'
normally 2 in each qtr. Section

1973 map
misc. field studies map MF-513

vibration effect of underground mining

88-06

R45

July 12, 1974

Mr. Otis Skinner
Upland Industries Corp.
1620 Prudential Plaza
Denver, CO 80202

Dear Mr. Skinner:

You and I and John Conway of GSA have been sharing views relative to our interest in a site for a meteorological observatory. Our site survey studies have identified several locations that meet our criteria: Section 4, T1N-R68 W, lying NE of Erie, Colorado in Weld County is one of these sites now owned by Union Pacific Railroad.

The National Oceanic and Atmospheric Administration (NOAA) proposes to establish with the National Center for Atmospheric Research (NCAR) a Joint Meteorological Observing Facility. The observing facility will have two principal features.

1. A 500 meter (1650') tall tower
2. Permanent quarters for NCAR's Field Observing Facility

The tower would be centrally located on a section of land. The NCAR facility would require about twenty acres of this section.

The proposed field laboratory will be characterized by a variety of in situ and remote sensors installed on the tower at ten different levels and in arrays on the site. The facility will be operated continuously to provide definition of the atmospheric environment for instrument testing purposes and to support atmospheric science research and development.

We need to determine now the possibility of lease or lease-purchase options for the section described in paragraph 1. We believe there are a number of alternatives available which can support plans for a JMOF facility, and also protect present owner's interests in mineral resources.

We will be pleased to make a presentation to you and your interested officials on the JMOF plan. We believe this will be a helpful prelude to further discussion on our interests in access to your land.

Please let me know when this presentation would be convenient for you.

Sincerely yours,

Robert T. Frost, Asst. Director, WPL

bcc. R. Serafin
N. Stiewig
John Conway
C. Gordon Little

Option for purchase

Ref: 38 C.G. 227; See also amplifying decision B-137279, dated Nov. 10, 1958, in desk file on C.G. decisions.

Authority for lease

Contained in Appropriation act for NOAA. GSA basic leasing authority of 40 USC 490(h) is for accommodation of federal agencies in buildings & improvements.

40 USC 490(c) covering acquisition of land is "at the request of any federal agency"

551

6-18-74

T2N R69W - W half 16

Sect 17 Klechant - 2 miles W of Ft. Lupton
1/2 mile S, new brick home
657-4436

Sect 24 @ 1K/A. June 72

T3N R65W sect 16
sect 36 T4N R65W } state school land

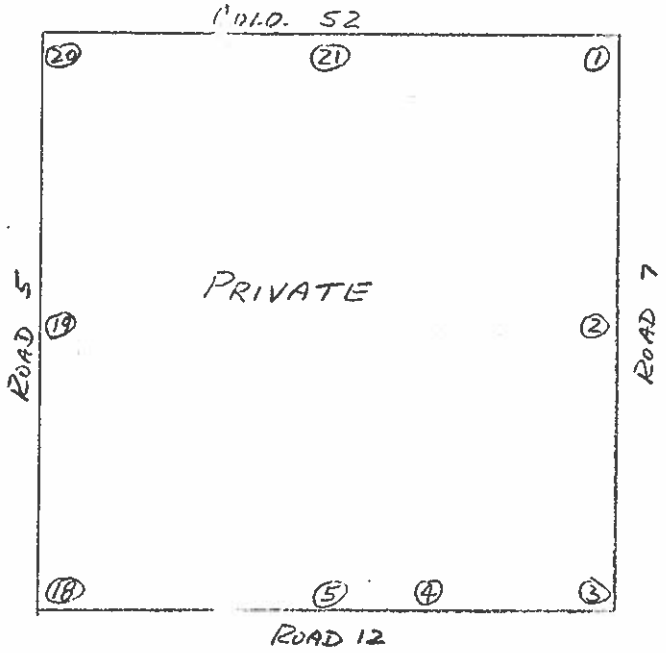
Ray Simpson, Chairman
Board of Land Commissioners

Air Force
1, 2, 35, 36, 45 5S 65W
6, 31 < 4S 64W
5S 64W

ERIE COLO. QUADRANGLE
WELD COUNTY

T1N – R68W SECTION 4 (A)

DRY-LAND WHEAT

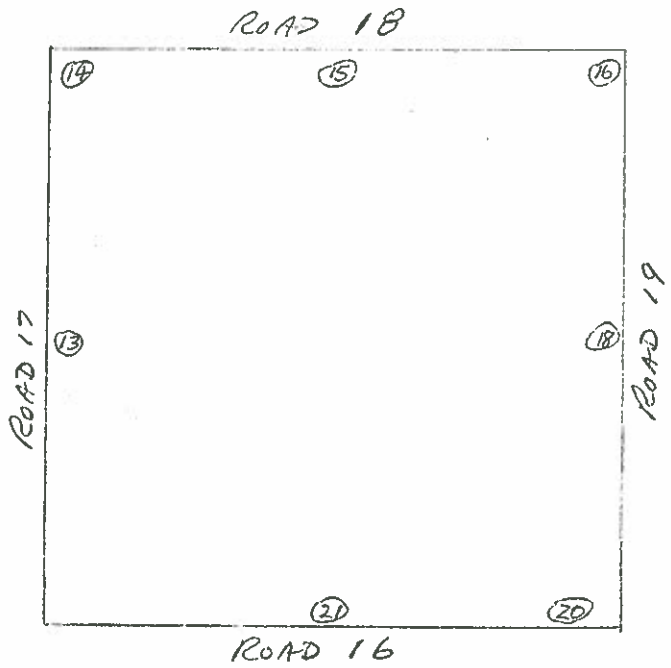


(18) SW CORNER
(19) W SIDE
(20) NW CORNER
(21) N SIDE
START SECOND ROLL
(1) NE CORNER
(2) E SIDE
(3) SE CORNER
(4) 0.3 mi W of SE CORNER
(5) S SIDE

FREDERICK, COLO. QUADRANGLE

T2N-R67W SECTION 27 (B1)

DRY-LAND WHEAT
OIL WELL NEAR W CENTER
HILL IN CENTER, IRRIGATED
CORN TO W (SECTION 28)



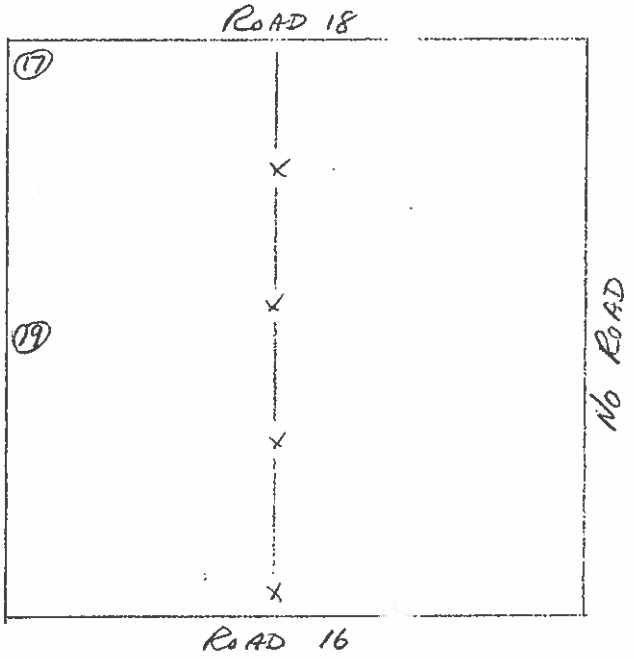
(13) W CENTER
(14) NW CORNER
(15) N CENTER
(16) NE CORNER (low spot, see hives, dust bowl to N)
(18) E CENTER (house 0.4 mi S of NE corner)
(20) 0.1 mi W of SE CORNER (house SE corner)
(21) S CENTER

Corn
~~Ella Proctor, Loveland~~

FREDERICK, COLO. QUADRANGLE

T2N - R67W SECTION 26 (B2)

DRY-LAND WHEAT
LARGE POWER LINE N-S
THROUGH CENTER



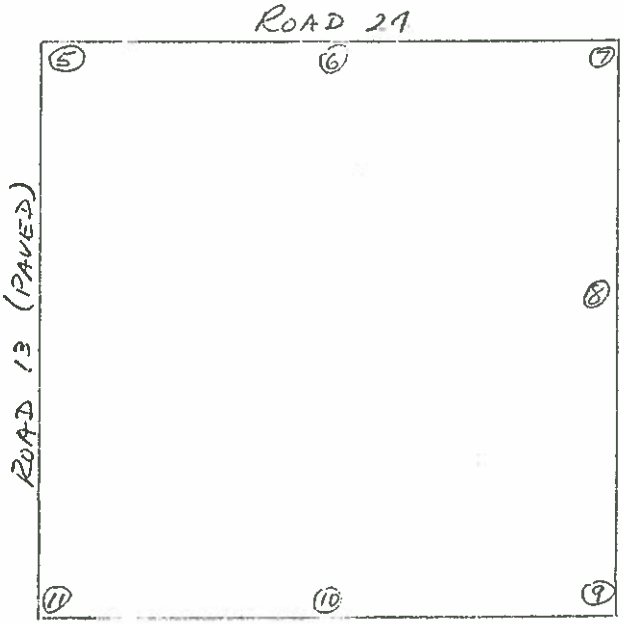
(17) NW CORNER
(19) W CENTER

GOWANDA, COLO. QUADRANGLE

About 2½ miles north of Firestone

T2N - R67W SECTION 7 (C)

SOME PASTURE
SOME DRY-LAND WHEAT



(5)	NW CORNER	
(6)	N CENTER	(Turkey farm 0.2 mi N)
(7)	NE CORNER	
(8)	E CENTER	(= 18" pipeline going in along E side — water?, few houses to SE)
(9)	SE CORNER	(wind blown dust piles here and E side)
(10)	S CENTER	(0.65 mi W of SE corner - abandoned farm
(11)	SW CORNER	(RR along W side angling across NW corner)

Corn 57
Ella Proctor-Lealand 583

© Com 57 A. 6-17-74

Mr. Bush

Land was bought for crop production for their feed lot operation about 1 mile west. They make feed pellets from

475 A @ $1,000 about 2 years ago. Air park was planned, but was later turned down on zoning.

Colorado Land & Investment Co. 443-1430

(D)

Jim Archibald
will call back tomorrow.

200 A tract

6-24-76

200 A parcel, irrigation ditch passes through 90 sec ft. of water all summer. Has produced - wet belt of Colorado - average up to 20" of rainfall zoned agric. good crop land. B

Webber
Skiech
Mceuenn
Rankin - may be available - may already have sold.

$1200 A acre

6-17-74

(E) Moody Land & Investment Co. Longmont Colo.
647 17th Avenue 772-1473
Longmont, Colorado Clarence Hawthorne

* 80 acres, can sell in 40 acre tracts. Rest of section not available. Buffs want to hold on to it.
$1,050/acre. Water available

80 in the back up against this. Lady indicated she would be willing to sell; children talked her out of it.
Irrigated land add $500./A.

1/4 east & west, 1/2 mile N. Pipe and frontage N & W.

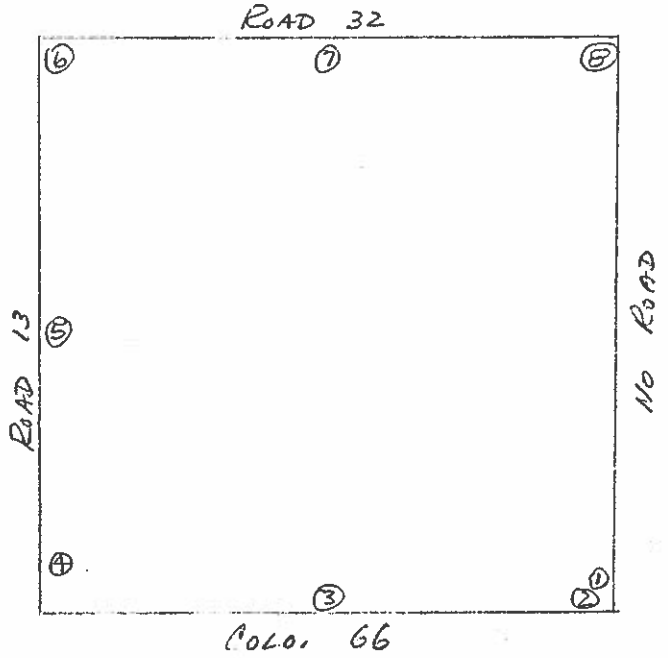
6-19-74

* Hawthorne called back to advise that owner has agreed to come down $100 dollars/A. in order to sell.

GOWANDA, COLO. QUADRANGLE

T3N-R67W SECTION 19 (D) ½ mi. NE Downtown

SOME ALFALFA
SOME WHEAT



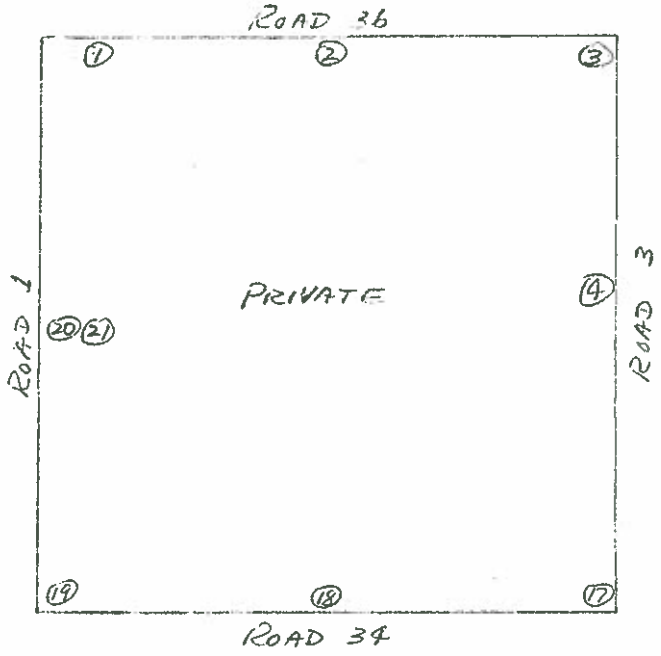
① SE CORNER LOOKING N
② SE CORNER
③ S CENTER (0.35 mi W of SE corner – for sale sign, Colo land & Investment Co, 1701 Pearl, Boulder 442-1430, 443-1433)
④ 0.1 mi E of SW CORNER (House SW corner)
⑤ W CENTER (house W center, power line W side-tips, corn N of house)
⑥ NW CORNER
⑦ N CENTER (0.6 mi E of NW corner – house)
⑧ NE CORNER

NO QUAD MAP

T3N - R68W SECTION 7 (E)

DRY-LAND WHEAT
STRIPS

5 mi NE Longmont
Moody Land & Development
(40 or 80 acres)

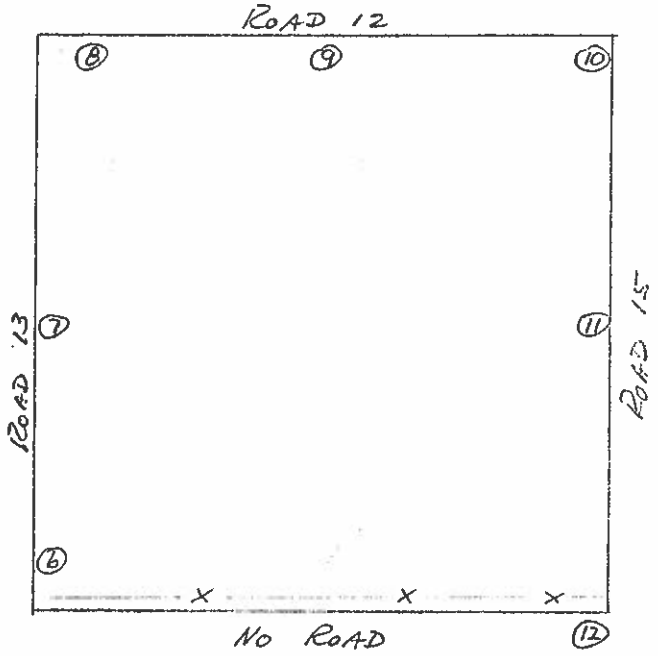


17 SE CORNER
18 S CENTER
19 SW CORNER
20 W CENTER RELAY TOWER TO W - U.S. GOVT.
21 FOR SALE SIGN AT W CENTER.
1 0.1 mi E of NW CORNER
2 N CENTER
3 NE CORNER
4 E CENTER

FREDERICK, COLO. QUADRANGLE

T1N-R67W SECTION 7 (F)

DRY-LAND WHEAT STRIPS
LARGE POWER LINE S EDGE.



⑥ 0.1 mi N of SW CORNER (house in SW corner, name HENRY W. JOHNSTON on mailbox)

⑦ W CENTER

⑧ 0.1 mi E of NW CORNER (house in NW corner & 0.1 mi S of NW corner)

⑨ N CENTER

⑩ NE CORNER

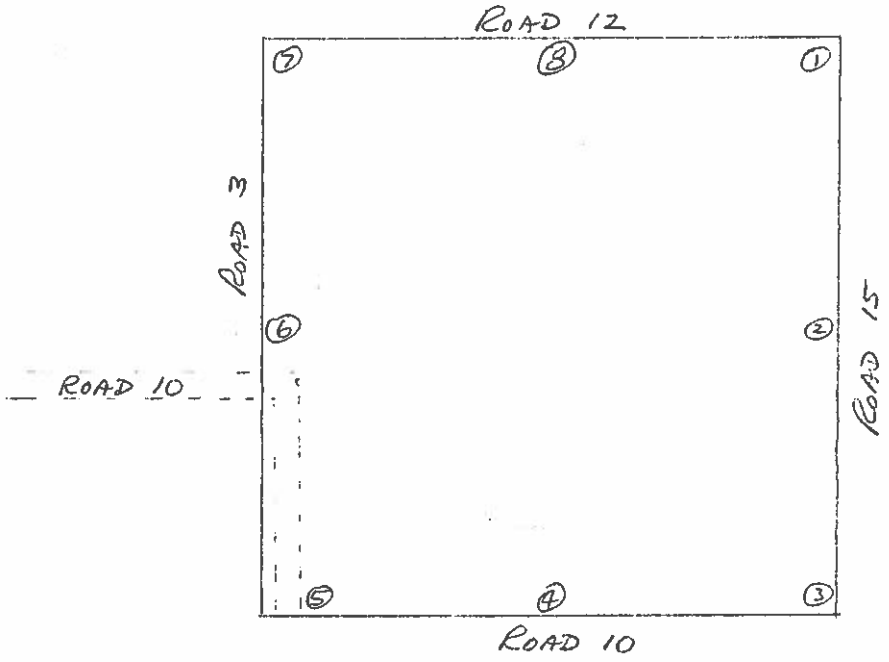
⑪ E CENTER

⑫ .05 S of SE CORNER

ERIE, COLO. QUADRANGLE

T1N-R68W SECTION 8 (G)

DRY-LAND WHEAT STRIPS

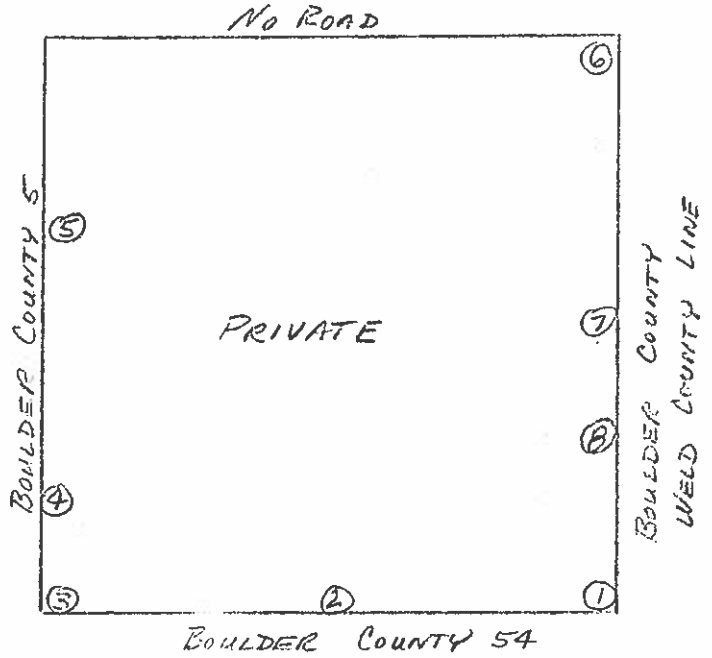


① NE CORNER (power line along N side across road)
② E CENTER
③ SE CORNER (RR through S CENTER)
④ S CENTER
⑤ SW CORNER
⑥ W CENTER
⑦ NW CORNER
⑧ N CENTER

ERIE COLO. QUADRANGLE
BOULDER COUNTY

T1N-R69W SECTION 25 (H)

DRY-LAND WHEAT



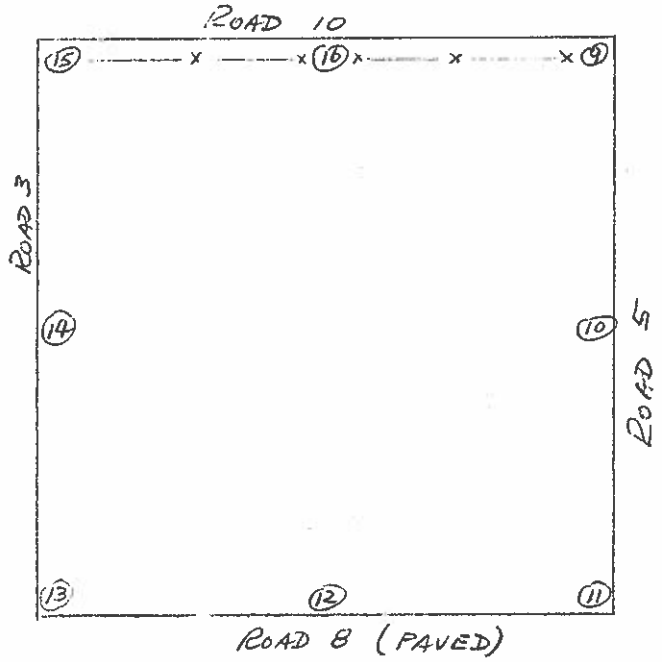
(1) SE CORNER
(2) SOUTH SIDE
(3) SW CORNER
(4) 0.2 mi N of SW CORNER
(5) 0.6 mi N of SW CORNER
(6) NE CORNER
(7) EAST SIDE
(8) 0.7 mi S of NE CORNER

NIKON F CAMERA — 28 mm LENS (75°),
1/125 SEC, F 16.

ERIE, COLO. QUADRANGLE

T1N-R68W SECTION 17 (I)

DRY-LAND WHEAT STRIPS
LARGE POWER LINE N EDGE

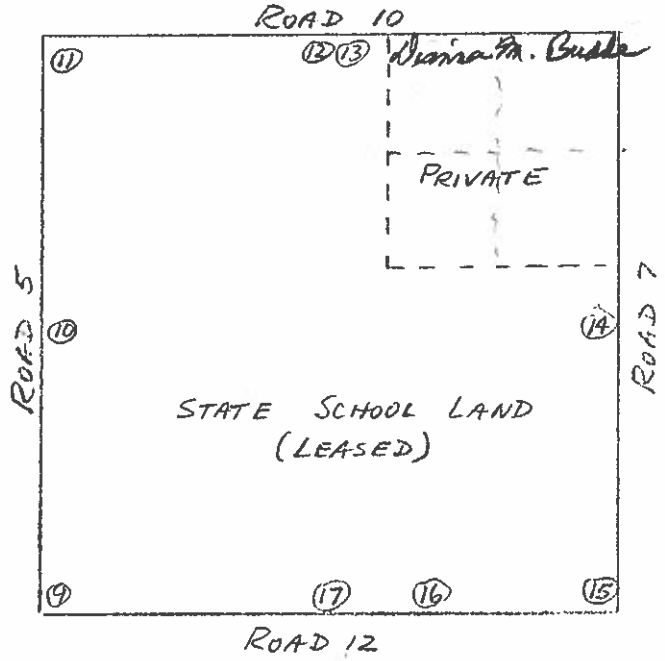


⑨ NE CORNER
⑩ E CENTER
⑪ SE CORNER
⑫ S CENTER (power line across road, taps)
⑬ SW CORNER
⑭ W CENTER (cimetery across road)
⑮ NW CORNER

ERIE COLO. QUADRANGLE
WELD COUNTY

T1N-R68W SECTION 16 (J)

DRY LAND WHEAT
DRILL RIG ON SECTION WEST (#17)



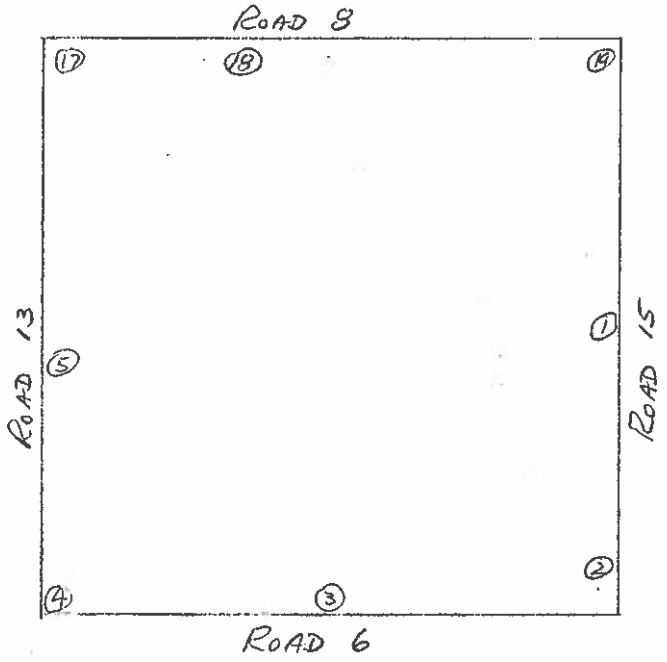
80k @ 7%
&
64 ok

(9) SW CORNER
(10) W SIDE
(11) NW CORNER
(12) N SIDE
(13) N SIDE POINTED ESE
(14) E SIDE
(15) SE CORNER
(16) 0.3 mi W of SE CORNER
(17) S SIDE

FREDERICK, COLO. QUADRANGLE

T1N – R67W SECTION 19 (K)

DRY-LAND WHEAT STRIPS

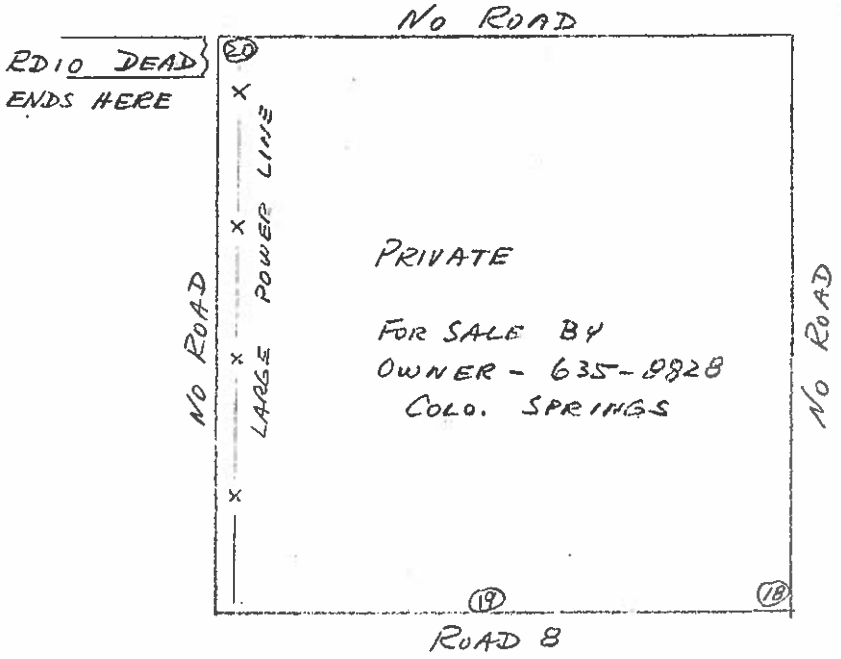


(17) NW CORNER
(18) 0.3 mi E of NW CORNER (house at 0.1 mi E)
(19) NE CORNER
(1) E CENTER (0.65 mi S of NE corner – new pumping oil well – tanks & road)
(2) 0.9 mi E of NW CORNER (house in SE corner, planted corn, house 0.25 mi W of SE corner)
(3) S CENTER
(4) SW CORNER
(5) W CENTER (0.6 mi. N of SW corner – working coal mine across road – very dusty due to large trucks)

HUDSON, COLO. QUADRANGLE
WELD COUNTY

T1N - R66W SECTION 14 (L)

DRY-LAND PASTURE
ROLLING HILLS - SOMEWHAT
SANDY, DRY, DUSTY. 2-WIRE
FENCE - FEW HORSES



Ray C. Mathews to Mathews Farms Partnership (Jefferson Co.)

(18) SE CORNER (for sale sign here)
(19) SOUTH CENTER (for sale sign here)
SW CORNER (for sale sign here)
(20) NW CORNER

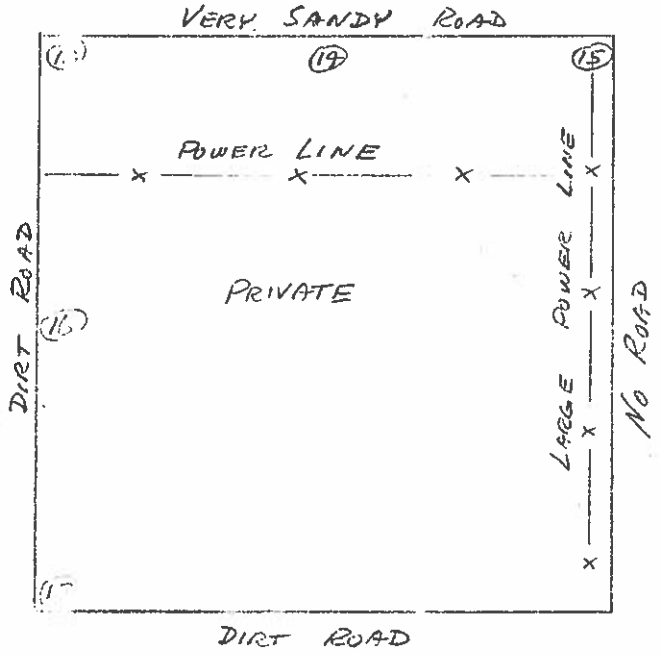
45 MINUTES TO RB-3 FROM END OF ROAD 10.
VIA FT. LUPTON (ACCESS RD 29)

Bob Irwin, Colorado Springs 635-8828
620 A @ $600. $372,000
20 acres for a transmission line to the west.
6½% loan in the amount of $274,800, annual payment
$17,800 / year. Would consider lease & buy option.

FORT LUPTON, COLO. QUADRANGLE
WELD COUNTY

T1N-R66W SECTION 27 (M)

DRY-LAND PASTURE - HOUSES OUT IN MIDDLE, SOMEWHAT HILLY



(13) NW CORNER
(14) N CENTER
(15) NE CORNER (no fence between 26 & 27)
(16) W center
(17) SW CORNER

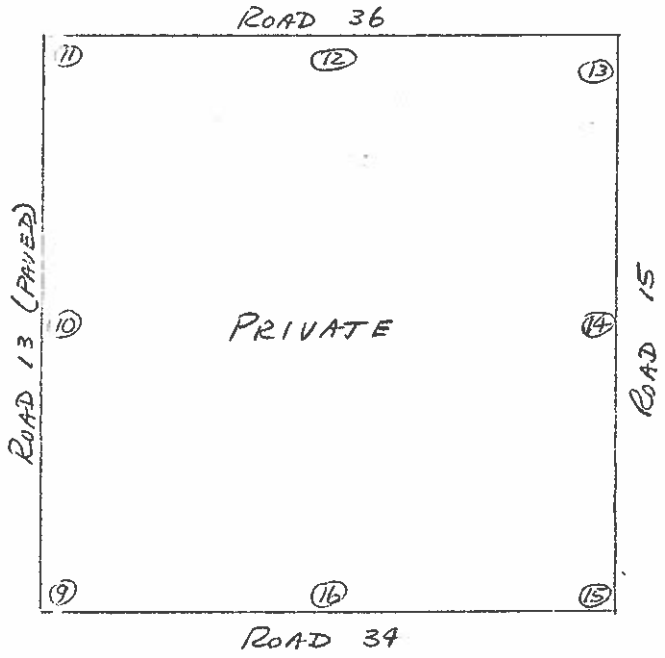
LARGE HOUSE 0.5 mi E OF SW CORNER
≈ 0.3 mi N OF ROAD.

SE CORNER (probably too hilly)

SOWANDA, COLO. QUADRANGLE

T3N-R67W SECTION 7 (EXTRA - NO AERIAL PHOTO)

FARM LAND



(9)	SW CORNER	RANCH (FARM) HOUSE	0.2 mi N
(10)	W CENTER	ABANDONED HOUSE	0.8 mi N
(11)	NW CORNER		
(12)	N CENTER	(some kind of crop - sugar beets?)	
(13)	0.05 S OF NE CORNER	(corn)	
(14)	E CENTER		
(15)	SE CORNER	(alfalfa)	
16	S CENTER	FARM HOUSE	0.45 mi W of SE CORNER

SECTION 8 TO EAST - W ½ MAY BE OK.

4 June 1974

MEMO TO: The RECORD

FROM: N. Medrud, Jr.

SUBJECT: Site Survey Trip of 30 May '74 (JMOF)

State Offices
Greeley
352-3038
Bud Clemens

Picture Log:

	Site	Photo Number	Description
T1NR68W Sect. 4	A	1	About 2 mi. NE of Erie. Krinks and Serafin have visited this one.
x	B	2	(3 miles NW from Ft. Lupton and 3 mi. E of Firestone.
x	B	3	(2 sections.
+ T2NR67W Sect 7	C	4	Railroad through the section - about 2-1/2 miles N of Firestone -- Turkey ranches 2 mi. SE and 2 mi. E of site.
	D	5	Mostly farm land, pond in middle - 1/2 mi. NE of Lowanda.
	E	6	5 mi. NE of Longmont. Beacon in center of west edge. Strip cropping.
+	GB	7	Picture of site "G" again.
	F	8	1/2 mi. S of Dracono.
T1NR68W Sect 8	G	9	Erie "airport" section (~2-1/2 NE of Erie).
*	H	10	Between Erie and Lafayette.
T1NR68W Sect 17	I	11	First section east of Erie.
	J	12	Second section east of Erie.
	K	13	1 mi. NE of St. Vrains-- RR spur in west part, also creek (or ditch).
	L	14	4 mi. SE of Ft. Lupton (vacant). Power line on west edge.

	Site	Photo Number	Description
	M	15	Mile or two NE of Brighton - dry farm land.
*	H	16	Second shot of site "H" looking NNE toward Erie.

x, +, *: Same sites

- END OF MEMO -

Scale 1:250,000

5 0 5 10 15 20 Statute Miles

5 0 5 10 15 20 25 30 Kilometers

5 0 5 10 15 Nautical Miles

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100 FOOT INTERVALS
TRANSVERSE MERCATOR PROJECTION

1955 MAGNETIC DECLINATION FOR THIS SHEET VARIES FROM 14°30' EASTERLY FOR THE CENTER OF THE WEST EDGE TO 13°30' EASTERLY FOR THE CENTER OF THE EAST EDGE. MEAN ANNUAL CHANGE IS 0°03' WESTERLY.

FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.

LOCATIC

NK 12-6	NK
NK 12-9	NK
NK 12-12	NK
NJ 12-3	NJ
NJ 12-6	NJ

Time Plan - PDP for JMOF

1974

Plan I

June 17 — "Draft" REPORT sent to NCAR Advisory Panel

June 19 — Issue IFB to C+E firm for consulting, design, tower specs, design and erection.

June 27 — Hess to White - request for approval of concept, OK to begin formal negotiations for land, impact study.

July 3 — NCAR Adv Panel reports to NCAR Mngt.

July 10 — NCAR Mngt OK's outline EDS
- Begin Lease negotiations, impact study
- JMOF report in final
- Involve NOS - ARS for support
- Complete tower specs.

July 15 — NCAR Mngt decides to support JMOF

July 18 — NCAR - ERL Mngt sign agreement of understanding
- Negotiate agreement with CEC firm studies specs on towers.

July 25 — Submit proposed to NOAA-DOC
1) To lease w/option to buy
2) To erect perm improvements on leased land < $40K
3) To erect tower on leased land as temporary structure;

- NCAR submits request for support to UCAR - NSF

Phase II

Sept 3 - NCAR - doc approves PDP
→ K for friendly lease or file plans for condemnation - lease/option

Sept 9 - clearance IFB for tower to meet specs okd by C&E

Sept 30 Close on IFB for Tower

Oct 10 Award K on Tower

42 C.G. 480

Jan 15 Site & design bunker & support sites; water, septic; power, communication;

Jan 30 IFB for bunker

Feb 14 Close IFB for bunker

Feb 19 Award K for bunker to be completed by May 1.

Sept 1 Complete Tower

Mar 1976 Complete Tower instrumentation

15 February 1974

PROPOSAL FOR AN NCAR-NOAA JOINT METEOROLOGICAL OBSERVATORY

LITTLE
MELAHN

A. INTRODUCTION

General preview of the purpose, objectives, organization, and characteristics of the observatory, plus a short very general statement of the NCAR-NOAA concern and proposed relationships.

B. PRESENT FACILITIES, STATUS AND EXPECTATIONS

LITTLE

1. NOAA
   a. Present status of facilities (perceived inadequacies, etc.)
   b. Expecation to press ahead with tower and meteorological observatory development

SERAFIN

2. NCAR
   a. Present status (inadequacies - Marshall, Gunbarrel)
   b. Expectation to replace or move the Marshall site
   c. Advantages expected to accrue to joint effort
      1) Added capabilities
      2) Cost effectiveness

C. TECHNOLOGICAL REQUIREMENTS AND OBJECTIVES

LITTLE
SERAFIN

1. Common NOAA-NCAR requirements and objectives
   a. The specific meteorological tower requirement and justificatio
   b. In instrument development
   c. In technique development

LITTLE

2. Unique NOAA requirements and objectives
   a. WPL
      1) In instrument development
      2) In technique development
   b. Corollary RFF requirements and potential usage
   c. Corollary APCL requirements and potential usage

SERRAFIN

3. Unique NCAR requirements and objectives
   a. FOF
      1) In instrument development
      2) In technique development

LITTLE SERAFIN

b. Corollary RAF requirements and potential usage

c. Corollary RSF requirements and potential usage

4. Anticipated advantages to external organizations (e.g. the university community, governmental laboratories, NASA)

a. Facility use

b. Cooperative technological research and development

c. Technology transfer

PANEL: ATLAS SRAMS HALL HOOK

D. SCIENTIFIC OBJECTIVES AND EXPECTED ADVANTAGES (as presented by the scientific panel but probably including:)

1. Unique research possibilities into:

a. Origin and nature of shear-induced turbulence

b. Energy transfers in the boundary layer

c. Structure and evolution of convection

d. Boundary layer controls on pollutant dispersion

2. Benefits of cooperative programs and sensor use

E. OBSERVATORY DESCRIPTION

PANEL ATLAS et al)

1. Site

a. Desired attributes

b. Constraints on selection

c. Search responsibility

d. Selection authority

e. Diagram of proposed layout

YEDRUD KRINKS

2. Real property

a. Architectural concepts

b. Control center

c. Laboratory

SERAFIN FROST BEATS

1) Instrument fabrication and repair

2) Instrument calibration and testing

3) Wind tunnel

4) Climatic chamber

d. Office building
   1) Staff offices
   2) Data processing and analysis (including minicomputer?)
   3) Computer terminal
   4) Visitor accommodations
e. Major equipment maintenance building
f. Other buildings (?)
g. Storage
h. Parking and outside storage
i. Power station and emergency backup

3. Instrumentation
   a. Immersion sensing
      1) Instrumented tower
      2) PAM
      3) Radiosondes
      4) Fixed conventional sensors
      5) Tethered sounding balloon system
      6) Other (?) RAF & RFF AIRCRAFT
      7) MICROBARGRAPHS
   b. Remote sensors
      1) Multiband Doppler radars and signal processors
      2) Lidar and laser systems
      3) Acdar system (RASS)
      4) Other (?) FPS-18 (big dish)
      5) FM-CW RADAR

F. MANAGEMENT STRUCTURE AND POLICY
   1. Policy for joint management
      a. Scientific
      b. Operational
   2. Organization and functions
   3. Staffing
   4. Group relationships and interfaces

HALL KRINKS →
BROCK →
BAYNTON
LENDING BEAN →
LITTLE HALL →
HALL GRAMS
SERAFIN
BAYNTON MANAGE
PANEL (ATLAS, etc)
LITTLE SERAFIN

LITTLE
SERAFIN

G. OPERATIONAL CONCEPT

1. Definition of priorities
2. Scheduling
3. Definition of eligibility criteria for visitor use (universities, et
4. Operational control structure
5. PORTABILITY ASPECTS - LENDING

BROCK
YOUNG
JENNE

H. DATA MANAGEMENT AND DISPOSITION

1. Data recording, processing, reduction, and analysis
2. Data storage
3. Ownership and lending policies
4. Sensor priorities
5. Compatibility for internal and external processing interfaces
6. SYSTEM TIMING

FROST
MEDRUD
RECORDS

I. SUPPORT SERVICES

1. Power
   a. Fixed
   b. Portable
2. Communications
   a. Personal
   b. Data transfer
3. Transportation
   a. On-site
   b. To and from site
4. Water - sewage - trash
5. Purchasing
6. Contracting
7. Administration - general
8. Clerical
   a. Personnel
   b. Supplies and equipment
9. ~~7.~~ Security
10. ~~8.~~ Fire protection
11. ~~9.~~ Safety

LITTLE (FROST)

SERAFIN (RECORDS)

J. BUDGET

1. Lease or purchase costs for site
2. Site development and construction
3. Instrumentation
4. Support equipment
5. Salaries, wages, and benefits
6. Operational costs
   a. Communications
   b. Transportation
   c. Computational
   d. Housekeeping (water, gas, electricity, insurance, site and facilities maintenance spare parts, office supplies, etc.)
   e. Instrumentation maintenance
   f. Tower maintenance
7. Funding sources and agreements
8.

LITTLE SERAFIN

K. SCHEDULE OF CRITICAL EVENTS

1. Submission of proposal
2. Upper level decision on proposal
3. Funding sources and agreements established
4. Site selection
5. Site acquisition
6. Site development plan complete (layout, architecture, facilities design, etc.)
7. Contract for site development and construction let
8. Installation of instrumentation
9. Facilities construction and site development complete
10. Personnel transfer
11. Systems check out
12. Operations commence

15 February 1974

Fed. Register Aug '73 Council Env. quality ~~impact~~ guides for prep. env. impact statements

FROST
MEDRUD

L./ ENVIRONMENTAL IMPACT ASSESSMENT

1. Ecology - land cover, etc.
2. Sewage and wastes <
3. Traffic <
4. Legal: FAA, zoning, etc. Frost.

MELAHN
LITTLE

D: [illegible]/ NCAR-NOAA AGREEMENT (SEPARATE DOCUMENT)

1. Operational control
2. Instrumentation responsibilities
3. Capital investments
4. Maintenance
5. Budget
6. Outside users

	Action	Info
Dir.		
Asst. Dir.		
Pat		
Kathy		

10-2-27

SUMMARY OF THE WORKSHOP ON A PROPOSED

NOAA/NCAR/CIRES JOINT METEOROLOGICAL OBSERVATORY

HELD ON 4 FEBRUARY 1974

AGENDA

WORKSHOP ON PROPOSED NOAA/NCAR/CIRES

JOINT METEOROLOGICAL OBSERVATORY

(J. M. O.)

February 4, 1974

8:30 AM	Key atmospheric science problems, and the role of the proposed meteorological observatory	J. Businger
9:00 AM	WPL's Remote Sensing Mission and the J. M. O.	
	Introduction	C. G. Little
9:10 AM	Laser Beam Remote Sensing	R. S. Lawrence
9:30 AM	Lidar Remote Sensing	V. E. Derr
9:50 AM	Coffee Break	
10:10 AM	Microwave Radiometry	M. T. Decker
10:30 AM	Meteorological Radar	E. E. Gossard
10:50 AM	Geoacoustics	W. H. Hooke
11:10 AM	Acoustic Echosounding	F. F. Hall
11:30 AM	WPL's Need for a Meteorological Observatory	C. G. Little
11:50 AM	Lunch	
1:00 PM	NOAA's Office of Weather Modification and the J. M. O.	E. Bollay
1:15 PM	Atmospheric Physics and Chemistry Laboratory and the J. M. O.	H. K. Weickmann
1:30 PM	CIRES and the Joint Meteorological Observatory	G. Chimonas
1:45 PM	NCAR Aircraft Measurements and the J. M. O.	D. Lenschow

2:00 PM	NCAR Field Observing Facility and the J. M. O.	R. J. Serafin
2:15 PM	Research Opportunities Represented by the J. M. O.	D. Atlas
2:35 PM	Coffee Break	
2:55 PM	Discussion	

1. Atmospheric science and the J. M. O.
2. Atmospheric technology and the J. M. O.
3. Optimum location
4. Optimum management
5. Funding of the J. M. O.

ABSTRACTS OF THE FORMAL PRESENTATIONS

Opening remarks by J. Businger:

Although the development and maintenance of a meteorological observatory as proposed is a major undertaking, it is argued that the time has come to establish such a facility. Difficulties encountered in large scale field experiments in the past and their gradual solution were briefly reviewed. It was concluded that present technology will allow both comprehensive collection as well as reduction of data from the boundary layer.

A joint meteorological observatory as proposed may contribute substantially to the scientific community by providing:

1. A first rate test site for calibration of, e.g., aircraft and remote sensing equipment.

2. Basic data on the boundary layer, e.g.,
   a. interaction between the mixed convective layer and the inversion.
   b. clear air turbulence and other transient phenomena.
   c. long time series.
   d. secondary flows such as helical roll vortices.

The goodwill, talent, and manpower seem to be available to set up a joint meteorological observatory. I believe we cannot afford not to fund this venture adequately.

An introduction to the work of the Wave Propagation Laboratory (WPL) by C. G. Little:

The Wave Propagation Laboratory was set up some six or seven years ago to serve as focal point within NOAA for the development and initial application of new geophysical remote sensing systems. This morning's briefing is in effect a status report of what progress we have made in realizing the potential advantages of atmospheric remote sensing. These include:

- measurements are made remotely
- in one, two or three dimensions
- with excellent space and time resolution
- many different parameters are potentially measurable
- measurements are often more representative of the medium than those by single in situ sensors
- manpower requirements are usually reduced

Laser-beam remote sensing by R. S. Lawrence:

The Wave Propagation Laboratory has already demonstrated the use of scintillations of a laser beam to measure continuously the average

crosswind over the beam. Three such laser-beam crosswind monitors have been combined in a triangular configuration to measure the convergence of horizontal wind averaged over the area of the triangle. It is proposed that such a convergence triangle would make a useful supplement to the standard instrumentation of the JMO.

Present WPL efforts in laser-beam remote sensing are concerned with the use of laser beams to measure the complete profile of the crosswinds as a function of position along the beam. Future applications involve not only ground-to-ground paths but also vertical paths, using stellar sources, to measure winds aloft.

A Lidar remote sensing system by V. E. Derr:

A flexible remote sensing system has been developed by the NOAA Wave Propagation Laboratory for field measurements of atmospheric parameters. It is built around an advanced lidar mounted in a transportable trailer, as illustrated in Fig. 1. A control center and ancillary data processing components are installed in a van which is normally parked alongside the trailer. The lidar receiver is a 70-cm diameter Newtonian telescope of 203-cm focal length, mounted on a converted NIKE-AJAX antenna mount with high angular pointing accuracy. The lidar employs a variety of laser transmitters, all mounted in the temperature-controlled trailer, with their output coupled to the receiver through the use of a Coudé path through the telescope mount to a transmitting telescope aligned paraxially with the receiver telescope. A versatile detector system for measurement of the received signal includes photomultipliers, tunable filters, and polarization-sensitive elements for studies using visible and UV lasers and cooled solid state detectors with suitable filters for use with IR lasers.

The system also incorporates a 24.5-GHz pulsed microwave radar to warn of aircraft flying in the path of the laser beam and also to determine cloud thickness; a small sighting telescope; a Barnes PRT-5 infrared radiometer (soon to be replaced with a Barnes PRT-6 or equivalent); and a TV vidicon viewer so the operator in the control van may observe the portion of the sky being studied. All these devices are mounted paraxially on the lidar telescope mount.

The system is transportable and can be installed at any site accessible to the tractor-drawn lidar trailer if adequate electrical power is available. It is anticipated that the system would use the Joint Meteorological Observatory for calibration purposes and for testing the feasibility of new lidar measurement techniques. It would also be available for limited time intervals for use in coordinated scientific studies conducted at the Joint Meteorological Observatory. The system can provide high-resolution backscattering intensity profiles to determine approximate spatial structure of cloud and aerosol layers; polarization data for differentiating ice and water in clouds and for possible aerosol identification; Doppler velocity measurements to determine particle velocities in clouds and to determine velocity structure at relatively short ranges (to about 1 km)

in "clear air;" Raman scattering measurements to determine water vapor profiles (to about 4 km at night) and molecular density profiles (to about 8 km at night); and a variety of other measurements which have already been tested or which await future development work.

Microwave radiometry by M. T. Decker:

Examples of the use of microwave radiometry in the ground-based study of the atmosphere include measurement of vertical temperature profiles and the integrals of liquid water and water vapor along arbitrary lines-of-sight from the instrument. Experiments in the 60 GHz oxygen absorption band have demonstrated our ability to determine profiles to above 5 km with detailed structure such as ground-based inversions in the lower atmosphere, but with more smoothing at the higher altitudes. Measurements of clouds at 31 GHz show excellent sensitivity to integrated liquid thickness (variations well under 0.1 mm are seen) and rejection of ice; measurements during a snowstorm showed integrated liquid thickness of less than 0.1 mm. Observations of the integrated water vapor in the trade wind regime have, for example, indicated a diurnal variation (more vapor during the day, less at night) that is masked by substantial errors in the normal radiosonde instrument. All of these techniques might be used to extend the capabilities of a Joint Meteorological Observatory, and conversely, their verification and calibration would be greatly facilitated by the existence of such an observatory.

Mention is also made of a program for observing the electromagnetic radiation from lightning discharge processes in severe storms. Data recorded to date indicate that radiation characteristic of tornadic storms has been identified; further studies of the detailed space-time history of these processes will be made and related to the dynamics of severe storms.

The WPL Meteorological Radar Program by E. E. Gossard:

The Meteorological Radar Program at the Wave Propagation Laboratory has two radar systems with which it carries out research in the atmosphere: (1) a dual-Doppler, pulse system using a wavelength of 3.2 cm and (2) an FM-CW radar using a wavelength of 10 cm. Both systems have urgent requirements for tower measurements to provide in situ "truth" and quantitative interpretation of the phenomena detected by the radars.

The dual Doppler radar system uses two radars separated by a fixed baseline to rapidly scan a common volume of space. They simultaneously scan common planes (COPLAN scan) beginning with the zero elevation plane, stepping upward through perhaps 8 to 32 such planes. At present, 24 range increments (gates) are sampled over perhaps 16 beams in each plane, taking 128, 256, 512, or 1024 samples in each volume increment. The time required to sample the whole volume is typically between 1.5 and 6 minutes depending on the number of samples in each volume increment and the number of coplanes sampled. Spectra of the samples are computed

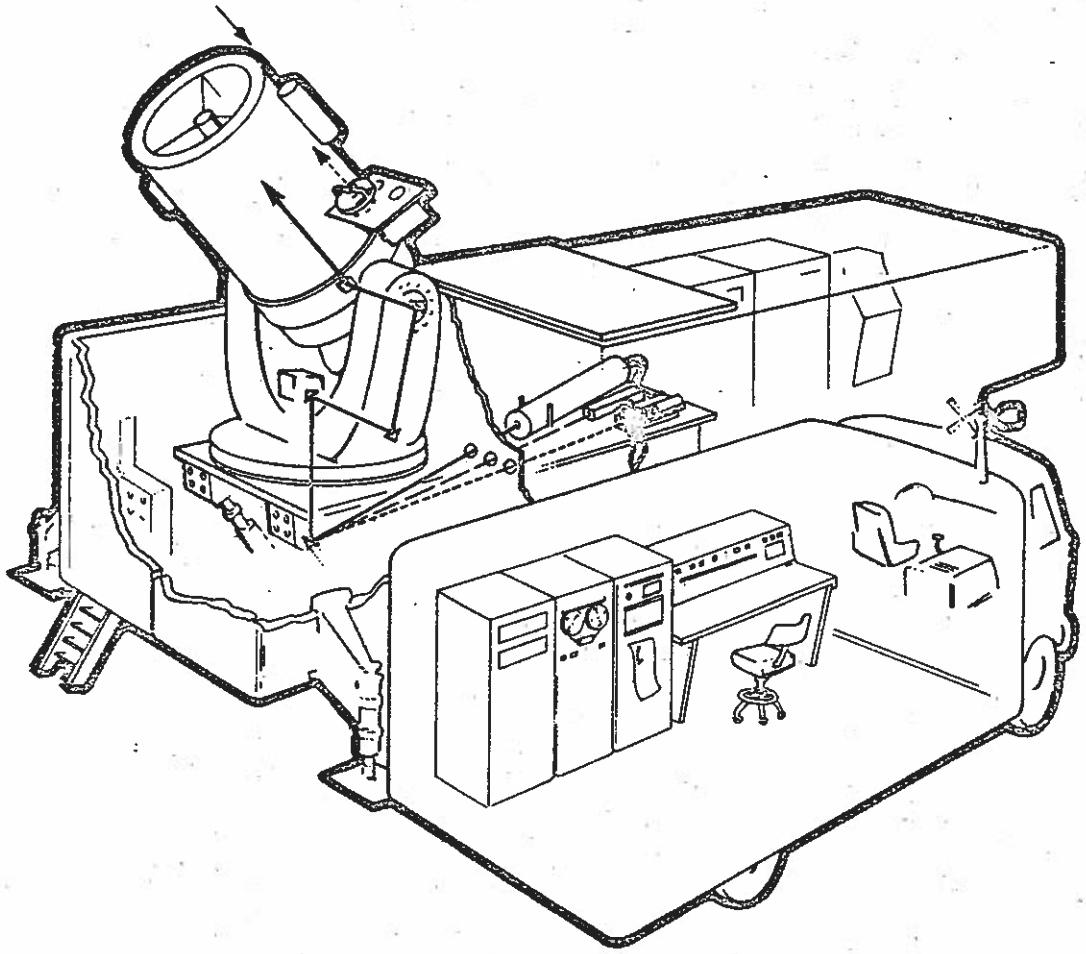


Fig. 1

off-line by FFT, providing both radial velocity and velocity variance information. The two radial components are then combined to give the total velocity field in each coplane. Next, the divergence is computed in the coplanes and the velocity component normal to the planes is computed by integration of the equation of continuity. Finally, the total velocity field is transformed and interpolated from the cylindrical coordinate system into the more convenient Cartesian system. Seven slides were shown of vertical and horizontal sections of wind fields during a winter snowstorm and a summer severe convective storm.

The importance of a tower within the common volume of the two radars, to tie the radar information to the lower boundary and to provide in situ truth, was emphasized.

The FM-CW radar was briefly described and its value for observing the fine structure of precipitation and the clear-air environment in the neighborhood of convective storms was pointed out. Several slides were shown which demonstrated the ability of the FM-CW system to "see" wave and instability structures within the clear air. Echoes from captive balloons being used to prove the fine structure within the clear-air echoes entered the system through the antenna side-lobes and were evident in the displays. It was pointed out that it was nearly impossible to get balloons into such clear-air structures before they disappeared, and the difficulties of managing captive balloons under windy conditions to the heights needed (~ 300-400 m) was emphasized. In almost every case shown, a 500 m tower would have provided the height and instrumentation needed to conclusively establish the nature and fine structure of the atmospheric features revealed by the radar. Using captive balloons, penetration of the structures has never been achieved.

Geoacoustics Research and the JMO by W. H. Hooke:

The Geoacoustics Research Program Area of WPL uses arrays of microbarographs to detect and study acoustic and gravity-wave motions in the presence of background noise (which consists of pressure fluctuations associated with turbulence and with the larger-scale pressure changes associated with frontal passages, planetary waves, and so forth). In addition, the group is interested in the nature and character of atmospheric pressure fluctuations of arbitrary origin and in partiuclar in pressure-velocity correlations, which represent energy fluxes of some importance in the atmospheric energy budget.

We would plan to provide the JMO with microbarographs suitable for the detection and study of gravity waves and acoustic waves propagating through the JMO area. In addition, these instruments should be useful for estimating pressure-velocity correlations, at least in certain frequency ranges.

We feel that the JMO, as described, will be a unique facility for the study of gravity-wave generation by shear instability, gravity-wave

encounters with critical levels, gravity-wave generation by convective overshoot, gravity-wave generation and propagation in low-level jets, and gravity-wave modulation of atmospheric stability. In addition, the facility will be an excellent test bed for our studies of atmospheric pressure spectra and pressure-velocity cospectra and of pressure fluctuations as a measure of surface stress.

Acoustic Echo Sounding by F. F. Hall:

The status of acoustic echo sounding, a discussion of the fundamental acoustic scattering equation, and the progress in hardware development was presented. Measurements of the temperature structure parameter, C_T^2, which contributes to acoustic backscattering, made with the echo sounder agree well with tower measurements using spaced, fast response temperature sensors under conditions of static instability when dry convective plumes are well developed. Excess acoustic scatter is observed from the statically stable atmosphere. The correlation of sounder C_T^2 with in situ $\overline{w'T'}$ heat flux measurements shows fair agreement as predicted by similarity theory modeling. Doppler measurements of wind are possible with multiple antenna sounder systems and real-time wind profiling capability to heights of 1 km has been demonstrated. In addition, the wind fluctuations measured from one sound pulse to the next allow the computation of Reynolds stress. Sounder derived $\overline{u'w'}$ flux values have shown favorable comparison with measurements made on the 152 m tower at Haswell, Colorado. A taller tower, as envisioned at the JMO would be useful in supporting acoustic echo sounding by providing in situ measurements of C_T^2 and C_v^2 from both convective and stably stratified structures to heights greater than the present Haswell tower, and also for accurate wind and wind shear measurements not now feasible with the NCAR BLP tethered balloon system.

A summary of WPL's views on the JMO by C. G. Little:

Clearly, the Wave Propagation Laboratory has made major progress in developing passive and active acoustic, optical and radio techniques for the remote measurement of meteorological parameters, - and in realizing many of the advantages I referred to in my introduction. (This is particularly true in the measurement (in three dimensions) of the velocity field; our ability to measure the temperature and humidity fields is much weaker).

In addition to quantitative measurements, a very important aspect of remote sensing is the ability to routinely monitor atmospheric processes (such as thermal plumes, gravity waves, temperature inversions, etc.) For example, acoustic echo-soundings make available to the observer in real time a wealth of information on atmospheric structure and processes which we are only now beginning to interpret.

Obviously, WPL can only meet its mission efficiently if we have easy

access to a good field site to test our remote sensing instrumentation. Unfortunately, we now face almost a crisis situation relative to field sites. We have lost our Gunbarrel Hill site near Boulder, and plans to rebuild the tower at our Table Mountain field site have quite literally collapsed. After some years of intermittent usage of our Haswell site (170 air miles SE of Boulder), we realize that it is seriously inadequate for our purposes because: (a) the tower is too low (only 150 m.), (b) it is unsafe (we nearly had a double fatality there three months ago) and (c) it is much too isolated -- in practice, we find we can only use it for perhaps two to three weeks per year.

We therefore need a good new field site in the vicinity of Boulder -- and for us, good means very fully instrumented. We need a site where surface networks, radiosondes, tethered balloons, aircraft, and a meteorological tower, as well as standard remote sensing instrumentation are readily available to provide a well-calibrated environment in which to test and evaluate our new remote sensing systems. Of all the measurement systems required, the meteorological tower is most important to us, primarily because of continuity of data in height and time, and also because of the large payloads of well calibrated instrumentation which it can carry. We therefore are looking around for a site east of Boulder, and within some 30-60 minutes drive from RB-3, and simultaneously are seeking funds for the meteorological tower.

WPL is therefore committed to creating, if necessary alone, its own best version of a meteorological "observatory." Such an observatory, however, would be incomplete, and could not be fully utilized by WPL's small staff. We propose instead a Joint Meteorological Observatory, built up from a combination of the resources of WPL, CIRES and NCAR, which would be available for use by all these groups, and through NCAR, by University scientists.

I propose that this joint observing facility include in situ meteorological instrumentation (such as the meteorological tower and surface network) plus certain remote sensing instrumentation; specifically, an array of monostatic acoustic echo sounders, an array of microbarographs and a laser beam array for the measurement of convergence/divergence and mean wind. These standard instruments would, I propose, be operated continuously for a very extended period (up to several years); the data from them would be immediately available at only a small service charge to any US scientist who needed them. In addition, I propose that this observing facility would be the location of both small and large experiments, in which individual or large groups would conduct observations ranging from specific tests or calibrations of individual instruments to full scale experiments involving scores of scientists and arrays of specialized instrumentation such as the NCAR balloons or aircraft and the WPL radar and lidar systems.

WPL must and will go ahead in creating some version of a meteorological observatory in the vicinity of Boulder. The question is -- to what extent does NCAR, and the University community it serves, wish to

take cognizance of this fact and join with us in creating, and using, a truly unique meteorological facility? By combining existing resources, only a minor increment in dollars will be required. I have concluded that, if we can work together in this way, the net scientific and technological benefits to atmospheric science are huge indeed, and far outweigh the incremental costs involved.

Comments and interests in the Joint Meteorological Observatory by ERL's Office of Weather Modification by E. Bollay:

The need for a meteorological tower in the immediate vicinity of Boulder to this office is not critical unless such a tower can be used where fly-by calibration runs with aircraft can be made. Whether this is possible so close to the Denver air traffic control patterns is questionable.

A tower as part of a well instrumented surface network and radar network would be very desirable if it were sufficiently far away from the mountains to measure representative meteorological properties of the Great Plains and not be under the influence of the Flatiron mountains behind Boulder.

In weather modification there is need for a National Weather Modification Laboratory which has need for a Meteorological Observatory in the proper location to study critical cloud physics problems such as entrainment into clouds, extending from the surface into the cloud base, the measurement of fluxes (temperature, moisture, and momentum) and characteristics of precipitation.

Most problems in weather modification are spatial problems and therefore not very amenable to solution from a tower.

Use of the Joint Meteorological Observatory in Atmospheric Physics and Chemistry by C. F. Chappell:

The Atmospheric Physics and Chemistry Laboratory of NOAA envisages that it may be able to use the Joint Meteorological Observatory (JMO) for several purposes.

One of the major research areas in APCL is the investigation of particulates. We are interested in identifying the particulates and obtaining size distributions. Also, we are interested in their vertical distribution, scattering characteristics and relating the above to laser returns. Sampling particulates from several points on the tower would accomplish the above objectives.

We envisage the tower could also be used for experiments in which supercooled clouds are seeded. A few times each cold season supercool stratus will envelop the top 1000 feet or so of the tower. Under these

conditions seeding experiments testing different seeding agents and variable seeding rates could be performed very nicely. Diffusion studies from the surface and at various levels of the tower can also be conducted.

Advantage of a high tower in atmospheric electric research by H. W. Kasemir:

A. Fair weather.

Study of the production and distribution of space charge and conductivity in a 100 m thick layer above ground. This study is closely related to the meteorological exchange layer, eddy diffusion and air pollution. Measurement in this layer are at present confined to airplane and balloon soundings. They are restricted to electric field measurements and limited to the brief periods of time the airplane or balloon penetrates the lower layer. The tower would have the advantage of continuous recording and the use of more sophisticated instrumentation including space charge and conductivity measurements.

B. Lightning research.

High towers are more likely to be hit by lightning strikes than any other place on a plane surface. Therefore, they are used for lightning studies for several decades. At present there is only one place in the world where such research is conducted, namely at the San Salvadore Mountain in Switzerland. American scientists usually go to Switzerland to pursue their lightning research. It would be to advantage not only to NCAR and NOAA but to all American (and foreign) lightning researchers if a well equipped lightning tower could be instituted in the United States.

A Meteorological Tower Facility - Its Usefulness in Conjunction with Instrumented Aircraft by D. H. Lenschow:

An instrumented meteorological tower, capable of measuring mean temperature, humidity and wind, as well as fluxes of sensible and latent heat and momentum at several levels up to several hundred feet above the ground would serve two very useful purposes when combined with the capabilities of instrumented aircraft.

(1) Intercomparison and Calibration of Aircraft Sensors - Flying the aircraft past the tower at the same height as instruments mounted on the tower would allow intercomparisons of both mean and flux quantities, and spectra and cospectra of these variables. For anything other than comparisons of mean quantities, the tower must be located in a region of homogeneous terrain. The aircraft will need to fly at the level of the tower instruments for a distance of at least 20 km on a straight line parallel to the wind in the vicinity of the tower.

A calibration of the aircraft static pressure measurement could be obtained by mounting a precision pressure altimeter on the tower and

observing when the airplane is at the same level, has to be done in flight at various speeds because the measured static pressure defect is a function of airspeed and angle of the air flow with respect to the aircraft.

(2) Boundary Layer Experiments - Considerable progress has been made in the development of numerical models of the planetary boundary layer. Detailed measurements in the surface layer have confirmed many of the theoretical predictions, based on the similarity hypothesis, that have been postulated for the behavior of velocity and scalar statistics and lapse rates in the surface layer. In order to verify the predictions that have been made for the behavior of variables above the surface layer, the same kind of detailed measurements that have been made for the surface layer need to be made through the rest of the boundary layer.

An instrumented tower capable of probing the boundary layer up to, perhaps, a thousand feet above the ground may encounter several difficulties:

1) Longer averaging times are needed to obtain significant statistics in the boundary layer above the surface layer than within the surface layer.

2) The buoyant eddies in an unstable boundary layer are elongated in a direction parallel to the mean wind. The wavelength of maximum fluxes has been found from previous aircraft measurements to be at longer wavelengths flying parallel to the wind than crosswind. The total heat flux has been found to be somewhat larger flying crosswind than flying along the wind. Since fixed point measurements are inherently along wind measurements, they may similarly underestimate the vertical fluxes.

3) The fixed point measurements may be representative of only the region upwind of the measuring point.

Participation in the Joint Meteorological Observatory by NCAR Field Observing Facility by R. J. Serafin:

Serafin described the Field Observing Facility's mission, that of serving universities and NCAR by providing instruments and support. He also described FOF's current instrument inventory and developmental programs in FOF. The latter include dual Doppler C-band radars, a portable automated mesonetwork, a Lidar data acquisition system, acoustic radar studies and various technique development programs. He also discussed FOF's plans to replace its Marshall field site. Lastly, Serafin discussed staffing the joint site and attendant costs. Also presented were the estimated costs of proceeding with the current Marshall master site expansion plan and Serafin emphasized that he would like to see these funds spent on a new site as part of the JMO.

Serafin concluded by listing the advantages of FOF participation in the JMO as follows:

* Achievement of a high quality observational and developmental facility for FOF.

* An excellent test bed for FOF instrument and technique developments.

* Attainment of capabilities jointly that might otherwise not be available separately to either the university community or WPL.

* Unprecedented opportunities for cooperative programs between WPL, universities and NCAR combining the atmospheric scientists and facilities of all.

* Consistency of the JMO concept with FOF's activities, plans and needs.

Research Opportunities of the Joint Meteorological Observatory by D. Atlas:

The proposed NOAA/NCAR/CIRES Joint Meteorological Observatory presents an unprecedented opportunity to conduct comprehensive and well integrated studies in a wide realm of the atmospheric sciences. We can anticipate important and exciting advances emanating from the synergistic use of a wide variety of remote probing tools and in situ sensors and from the gathering of scientists and engineers focused toward a few major problems. Three major related research areas which might be given high priority are: (1) the origin and nature of shear induced turbulence in thermally stratified flow within the inversion and the mechanisms by which gravity waves feed energy into the shear to maintain the turbulence; (2) the structure and evolution of convection in the daytime convective boundary layer and the interactions of the convective layer with the nocturnal inversion, with special attention to the relation of organized clear air convection to the subsequent development of clouds and showers and to the dependence of the dispersion of pollutants upon convection; and (3) atmospheric controls upon the concentration and diffusion of pollutants.

All the above problems are particularly amenable to solution by the array of sensors proposed for the JMO. In problem (1) acoustic and FM/CW radars clearly delineate the regions of shear induced turbulence (Kelvin - Helmboltz waves) and gravity waves within the inversion. Doppler measurements by acoustic radar, coherent lidar, and microwave radar tracking chaff can provide excellent measures of the shear, the wave induced velocity perturbations, the Reynolds' stresses, and the vertical transport of momentum by gravity waves. Wave characteristics (length, amplitude, phase velocity) can be measured by both remote probes and the array of ground based sensors. The tower and tethered balloon systems will provide important measures of the profiles of the critical parameters (e.g., shear, stability, Richardson number, turbulent kinetic energy in three directions, eddy dissipation rate, and heat, momentum, and vapor fluxes). Together, the overall system should be capable of providing phenomenal insight into the origin of shear induced turbulence and its dependence upon the mesoscale processes on which it must ultimately depend.

Similarly, the array of remote sensor should be able to map the structure organization, and evolution of convective elements in the boundary layer. Associated Doppler measurements by various remote probes will provide vital measurements of the velocity fields; velocity perturbations, momentum transports, eddy dissipation rates, and associated diffusion. Supporting tower and tethered balloon data will provide measures of heat and vapor transports, and aircraft flights both down and cross-wind will document differences in longitudinal and transverse structures. Together with lidar mapping of pollutants, we also have the first real opportunity of complete quantitative documentation of the meteorological structure of convection in the boundary layer and how it operates to affect diffusion.

We must not allow these unprecedented opportunities for major advances to escape.

Comments at the conclusion of the presentations by F. P. Bretherton:

I have found all that I have heard most exciting and I certainly look forward to the prospect of a possible cooperative venture with the WPL. However, in light of the austere funding of all science which we face today, I must state that the proposed observatory will have to take its place with a number of other very exciting proposals in competition for a limited amount of funding support.

Clearly, before such a proposal can join the ranks of those to be considered for this support, a detailed scientific plan must be formulated which indicates the science to be conducted, the theory to be investigated and the hoped for results. This scientific plan will have to name scientists intending to use the proposed observatory and describe in each case the plans of these scientists.

If indeed the proposed observatory is important from the standpoint of system intercalibration then the plan should make a concise statement of how this is to be done and of why this is important in advancing science.

Proposals by prospective users should also state their siting requirements, since this appears to be a controversial area. If one requires a certain fetch in order to succeed in his scientific venture, then this must be stated.

In addition to a scientific plan for the proposed observatory a clear statement must be made of the funding requirements and a detailed proposal for the management of the JMO. This latter should specify a mechanism for scientific management, including, perhaps, a scientific steering committee.

DISCUSSION OF THE PROPOSAL

A discussion period was held at the conclusion of the formal presentations. To a large extent the discussion centered around three subjects: the advisability of the location in the vicinity of Boulder, the need to build an expensive tower, and the question of the mobility of the instrumentation involved.

Location of the Observatory

A number of those present felt that a long homogeneous fetch upwind from the observatory would be essential to some of the science contemplated. There were those who objected to a location within 20 km of the mountains while others expressed the opinion that the mountain influence might be too pronounced out as far as 100 km.

In response to the objections about the location, it was stated by some that there were many interesting phenomena in the lee of the Rocky Mountains which will be very interesting to observe and over a considerable period of time. Rather than objecting to the idea of a Boulder site these advocates supported such a location. Also mentioned was the opinion that we should start observing the boundary layer under conditions other than those of minimum influence by the surrounding terrain. Another supporter of the near-to-Boulder siting pointed out that although the Rocky Mountains do have a great influence on the area, the wind does not always blow from the west and the Rocky Mountains are not always the dominent factor in the low level wind flow.

From the point of view of the Wave Propagation Laboratory (WPL), their part of the proposal which is to supply the tower is contingent on the tower being in the vicinity of Boulder where they can use it on a daily basis in their instrumentation and technique development work. The WPL now has a tower at Haswell, Colorado. They have found that this is too far away to be really useful in their work.

The Need to Build a Tower

The substantial cost of building a tall tower provoked questions and comments. It was pointed out that there are in most locations TV towers which can be instrumented and used for meteorological observations. There was also mention of the existing meteorological towers in various parts of the country including two approximately 1400 feet in height. One of these is at Jackass Flats near Las Vegas, Nevada and the other is located at Eglin Air Force Base in the Florida Pan Handle.

Concerning the use of a TV tower it was pointed out that TV transmitters do interfere with certain instrumentation and as such the WPL objectives could not be satisfied using a TV tower. On the suggestion

that a tower away from Boulder could be used, the WPL stated their position as follows:

The WPL has need of a tall tower to continue their work in the development of remote probing instrumentation and in the development of remote probing techniques. For their purposes the tower will have to be in the Boulder area accessible to their staff and to their other facilities. From the WPL point of view there are many advantage for aligning their tower with other meteorological measurements instrumentation. However, they can not lose sight of the fundamental fact that the tower must be readily available to their laboratory. For this reason, their cooperation and their providing of the tower must ultimately hinge on the tower's location.

The Mobility of Associated Instrumentation

A contributing factor to the worry over the location of the proposed observatory was the concern that all instrumentation would be fixed. In response to this it was stated that only the tower would be immovable and that all other instrumentation could be relocated. It was pointed out that all of the NCAR instrumentation is dedicated to the support of university and NCAR programs and that it will be sent where the demand of the community dictates. WPL's mission includes both demonstration and application of its new remote sensing capabilities, and under appropriate conditions, WPL instrumentation might be available for use at other locations.

Other Comments

On the subject of the cost of the proposed observatory, it was pointed out that the WPL already plans to erect the tower and it is assumed that the monies are to be made available. For NCAR's part the Field Observing Facility has proposed moving its present field site. The present site is unsatisfactory for use in radar development work because of obstacles to viewing. If the FOF plan is approved, then, coupled with the WPL tower plan, sufficient funds would be available to establish the basic site to include the tower and some buildings. This is not to say that additional funding would not be required. Modest increase in staff will have to be employed for the operation of the observatory.

WPL indicated that they have had quotes on the actual cost of erecting a tower and feel that it is reasonable to say that a 500 meter tower can be erected for about a half million dollars. This figure is for just the tower. Land upon which to erect the tower, the instrumentation and so forth would be in addition.

A number of those attending stressed the need for a very strong statement of the science to be accomplished by such an observatory. A user group should be identified early in the proposal stage and these users should state explicitly the science which they intend to accomplish through use of the observatory:

Several in attendance felt that the proposed observatory would be very useful in developing techniques valuable for use in the atmospheric pollution problem. They felt it important to show a clear cut relationship between the observatory and the problems of the decade, namely energy development, and pollution and diffusion.

The WPL showed slides during the discussion of sites that were being considered east of the Boulder/Denver area. While there is no question but what the mountain influence is present, the slides did indicate level and homogeneous terrain surrounding these sites.

Proposed NOAA/NCAR/CIRES Joint Meteorological Workshop - Attendees

David Atlas	NCAR/NHRE
David Bargen	NCAR/ATD
Don Barrick	NOAA/WPL
Harold Baynton	NCAR/ATD
Don Beran	NOAA/WPL
Gene Bollay	NOAA/WMPO
Francis Bretherton	UCAR
Fred Brock	NCAR/ATD
Ed Brown	NCAR/ATD
Joost Businger	University of Washington
Charles Chappell	NOAA/APOL
George Chimonas	CIRES, C.U.
John Clark	NSF
William H. Clayton	Texas A&M University
Steve Clifford	NOAA/WPL
R. N. Culnan	NOAA/ERL
Martin Decker	NOAA/WPL
Vernon E. Derr	NOAA/WPL
Franco Einaudi	CIRES, C.U.
Chuck Elderkin	Battelle Northwest
John Firor	NCAR
Paul Frenzen	Argonne National Laboratory
R. B. Fritz	NOAA/SEL
Robert Frost	NOAA/WPL
Earl Gossard	NOAA/WPL
Guy Goyer	NCAR/NHRE
Gerry Grams	NCAR/AAP
Freeman Hall	NOAA/WPL
Duane Haugen	Air Force Cambridge Research Lab
Wilmot Hess	NOAA/ERL
J. W. Hinkelman, Jr.	NCAR/ATD
William Hooke	NOAA/WPL

Attendees (Continued)

Rex L. Inman	University of Oklahoma
Akira Kasahara	NCAR/AAP
Heinz Kasemir	NOAA/ERL
Isadore Katz	Johns Hopkins University
Carl Kisslinger	CIRES, C.U.
Walter D. Komhyr	NOAA/ARL
Robert W. Krinks	NOAA/WPL
Thomas Kyle	NCAR/NHRE
Demetrius Lalas	CIRES, C.U.
R. S. Lawrence	NOAA/WPL
Ellsworth LeDrew	Institute of Arctic & Alpine Research, C.U.
Don Lenschow	NCAR/ATD
Roger Lhermitte	University of Miami
D. K. Lilly	NCAR/AAP
C. Gordon Little	NOAA/WPL
Walter Lyons	Univ. of Wisconsin, Milwaukee
Wes Melahn	NCAR/ATD
A. C. Modahl	NCAR/NHRE
John Norman	Pennsylvania State University
Roger Rhodes	NOAA/WPL
Bob Serafin	NCAR/ATD
Paul Smith	South Dakota School of Mines
Jerry Stephens	Florida State University
Giorgio Tesi	NSF
Aylmer H. Thompson	Texas A&M University
Jim Tillman	University of Washington
Harry Vaughan	NCAR/ATD
Tom Vander Haar	Colorado State University
Ed Westwater	NOAA/WPL
John Wyngaard	Air Force Cambridge Research Lab

IN THE UNITED STATES DISTRICT COURT

FOR THE DISTRICT OF COLORADO

TED STATES OF AMERICA, Plaintiff, .92 ACRES OF LAND, More or s, Situate in Crowley nty, State of Colorado, James H. Autry, et al., Unknown Owners, Defendants.	CIVIL ~~ACTION~~ NO. C-3023 COMPLAINT IN CONDEMNATION

1. This is an action of a civil nature brought by the United ıtes of America at the request of the Assistant Secretary of the Force for the taking of property under power of eminent domain l for the ascertainment and award of just compensation to the ıers and parties in interest.

2. The authority for the taking is the Act of Congress approved ɔruary 26, 1931 (46 Stat. 1421, 40 U.S.C. 258a), and acts supple- ıtary thereto and amendatory thereof, and under the further thority of the Act of Congress approved August 1, 1888 (25 Stat. /, 40 U.S.C. 257); Sections 2663 and 9773 of Title 10, United ıtes Code, which authorize the acquisition of land for military rposes; and the Act of Congress approved January 11, 1971 (Public ɯ 91-668), which act authorizes acquisition of the land and propriated funds for such purposes.

3. The use for which the property is to be taken is to provide for the establishment of additional facilities for the use of the Department of the Air Force and for other military uses incident thereto. The land has been selected under the direction of the Secretary of the Air Force for use in connection with Kirtland Air Force Base, Bernalillo County, State of New Mexico, and for such other uses as may be authorized by Congress or by Executive Order and is required for immediate use by the Department of the Air Force.

4. The estate in the property to be acquired is a term for years ending June 30, 1971, extendible for yearly periods thereafter, at the election of the United States, until June 30, 1974, notice of which election shall be filed in the proceeding at least thirty (30) days prior to the end of the term hereby taken, or subsequent extensions thereof, together with the right to remove, within a reasonable time after the expiration of the term taken, or any extension thereof, any and all improvements and structures heretofore or hereafter placed thereon by or for the United States; subject, however, to existing easements for public roads and highways, public utilities, railroads and pipelines.

5. The property so to be taken is described in Exhibit A hereto attached.

6. The persons having or claiming an interest in the property whose names are ascertainable by a reasonably diligent search of the records and those whose names have otherwise been learned are:

Tract No. 100	James N. & Joyce Autry Route 1 Rocky Ford, Colorado 81067

7. The Board of County Commissioners of Crowley County, Colorado, may have or claim an interest in the property by reason of taxes and assessments due and exigible.

8. In addition to the persons named, there are or may be others who have or may claim some interest in the property to be taken, whose names are unknown to the plaintiff and such persons are made parties to the action under the designation "Unknown Owners."

Wherefore the plaintiff demands judgment that the property be condemned and that just compensation for the taking be ascertained and awarded and for such other relief as may be lawful and proper.

[illegible] undersigned, Clerk of the [illegible] States District Court for the [illegible] of Colorado, do certify that [illegible] is a true copy of an original document [illegible] on file [illegible] in my [illegible]
[illegible] SEAL of [illegible]
8th of April 1971
G. WALTER [illegible], Clerk
[illegible] Gloria Durkin

JAMES L. TREECE
United States Attorney

By: /s/ B. Richard Taylor
B. RICHARD TAYLOR
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