

# Sidereal Times



1976

Next AAAP Meeting

January 13, 8 P.M.

Place:

PRINCETON UNIVERSITY

Jadwin Hall  
Rm A07

SPEAKERS

*The AAAP*  
*Presents*

John Church  
Mike Clark  
Bob Richardson

On January 13 at 8 p.m. the Amateur Astronomers Association of Princeton will conduct an astrophotography workshop featuring qualified AAAP members, Mike Clark, John Church and Bob Richardson will touch upon many facets of astro-photography techniques. Included among the topics are:

Developing Techniques  
Printing Techniques  
Equipment Buyer's Guide  
Adaptors

W  
ASTRO★-PHOTO★  
R  
KSHOP★

Dinner: THE FOOLISH FOX 6PM

INFORMAL MEETING 7:30

ROCKY HILL RTE 206

JADWIN

THE AMATEUR ASTRONOMERS ASSOCIATION OF PRINCETON

P.O. BOX 2017  
PRINCETON, N J.08540



# Comets Anyone?

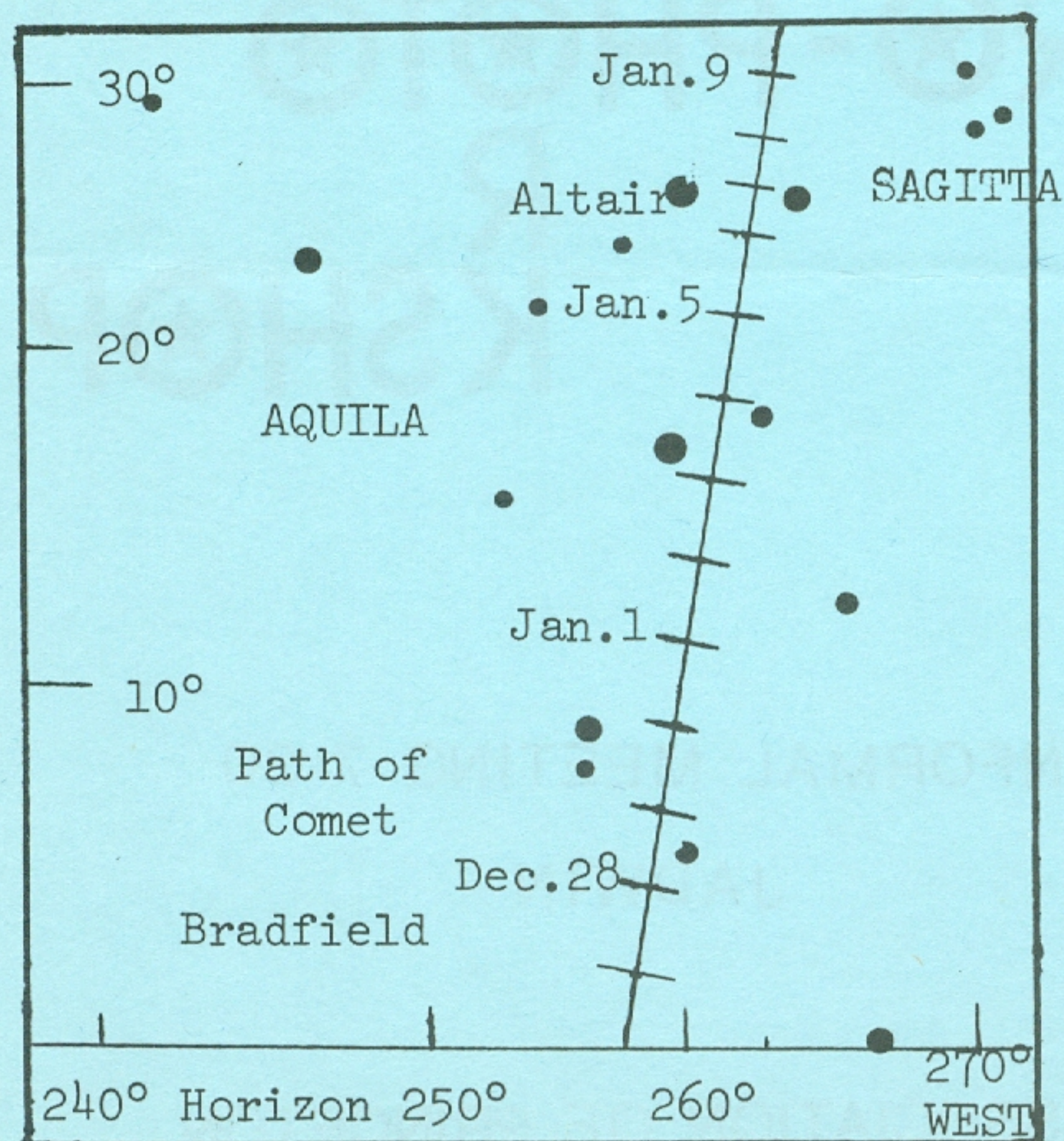
Two recently discovered comets are sublimating their way on a course that may take them on a path that will ultimately reach naked eye visibility for the inhabitants of the space ship earth.

Comet Bradfield (1975p) was discovered on November 11 by William A. Bradfield a native of Australia whom has discovered a total of four comets through a 6-inch Richey Field refractor. Comet News Service published by the McDonnell Planetarium of St. Louis provides the following data:

...Bradfield, currently deep in southern skies, is heading toward a perihelion (closest approach to the sun) at 04 hours Universal Time Dec. 21, at a distance of .218 A.U. (18,600,000 miles) on the far side of the sun. Just a few hours later it skirts a fourth degree east of the sun's disk as it crosses its ascending node. Owing to its high orbital inclination ( $70^\circ$ ), the comet sweeps rapidly north of the ecliptic plane to become favorably placed for northern hemisphere viewing.

If Bradfield behaves like many comets and brightens as the inverse fourth power of its distance from the sun, it should be about third magnitude on Dec. 27, fourth magnitude on Dec. 30, fifth magnitude on Jan. 1, and about eighth magnitude on Jan. 23. It might first become visible to the unaided eye about Jan. 1, 1976 as it moves steadily higher above the evening horizon as evening nautical twilight ends. Binocularists and telescopists should be able to locate it sooner. Optical aid of some sort would be advisable for first locating the comet, and the need for an unobstructed western horizon free from city lights cannot be overemphasized. The waxing first-quarter moon will interfere increasingly with observations for a bit over a week beginning around Jan. 8. The comet's tail would be pointing away from the horizon and toward the right (north), and each degree of observed tail corresponds roughly to 2,000,000 miles in the first half of January.

Shortly after Bradfield disappears comet West (1975n) may also attain naked eye visibility in March.



COMET BRADFIELD low in the western sky, but ascending in Aquila. The chart is drawn for  $40^\circ$  N. latitude for 6:42 p.m. local time (end of nautical twilight) on Dec. 27. For each succeeding evening at this time, positions on the map are displaced about a degree westward due to the earth's revolution about the sun. For local standard time, add or subtract four minutes for each degree, respectively, west or east of your standard time meridian (longitudes  $75^\circ$  for EST,  $90^\circ$  for CST, etc.).

Each tick on the comets path is its position for 7 p.m. EST of the date indicated (0 hours U.T. of the following date). The dotted lines roughly indicate the boundary of the Milky Way, and the faintest stars shown are magnitude shown are mag. 4.5.



## Observatory Committee Report

At the club meeting of December 9, 1975, Observatory Committee Chairman Bill Phillips discussed the results of a meeting between officials of the State Museum, the Department of Environmental Protection (DEP) and the AAAP concerning a proposal by the AAAP and the State Museum for an observatory at Washington Crossing State Park. At that meeting in essence the DEP officials accepted the proposal. Since such an agreement with the State will oblige the AAAP to direct its primary efforts toward constructing such an observatory, it was thought that a complete discussion of the project and all its details should be held at a club meeting. This discussion will be held the January 13, 1976 meeting. I strongly urge every member who possibly can to attend this meeting as discussions made there will decide the course of the AAAP for many years in the future. In the past there has been strong support for a Club observatory. I am confident such support will continue in the future.

To serve as a basis for discussion below I have listed the conditions agreed upon in principle between the AAAP and the two State agencies.

1. The AAAP will own and its members build an observatory at Washington Crossing State Park.
2. A favorable site will be made available on a long term renewable lease. The most favorable site agreed upon was at the Nature Center. Officials of the DEP seem to have an understanding of, in an astronomical context, the need to preserve dark skies and will take our needs into account in any future development of the area.
3. The AAAP in return for permission to build on public land, agrees to hold, in cooperation with the State Museum Planetarium, public observing sessions twelve times per year (six in the spring and six in the fall). Special sessions will also be arranged for unusual astronomical events such as lunar eclipses and the appearance of bright comets. The State Museum Planetarium staff will run the sessions with at least one AAAP member to assist in operating the telescopes.
4. Because the observatory will be open to the public on certain nights of the year, the DEP requires us to install sanitary facilities (i.e. a wash basin and toilet).
5. The DEP agrees that construction will begin in late summer, 1976. Before that time Bicentennial activities would make any construction difficult.
6. The DEP must approve plans for the observatory.
7. In return for support of the observatory proposal the State Museum Planetarium will have use of the facility six nights per year for use during evening astronomy courses.



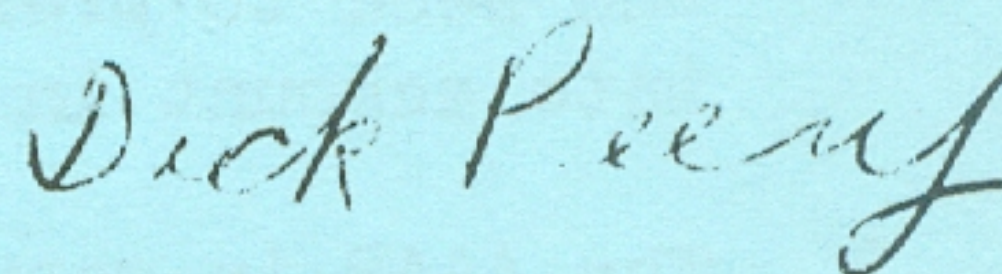
Perhaps a few additional explanatory comments would be in order here. First as to condition 2: public sessions. Lest 12 public observing sessions per year be considered too onerous a burden, it should be mentioned that the Edwin Aldrin Observatory constructed by the New Jersey Amateur Astronomers, Inc. in Vorhees State Park under an agreement with the State must be open to the public one night per week. Secondly any agreements made between the State Museum and the AAAP will be in written form.

As far as costs are concerned, the original proposal estimated the cost of materials at \$3,000. The sanitary facility requirement would add \$1500 to this, thus bringing the cost of building materials to \$4500. Over the past three years, much of the time without a definite observatory site, the AAAP has accumulated \$1500 in the Observatory Fund. The Observatory Committee thinks that with some thorough carvassing on the part of Club members donors can be found for at least some building materials.

Since an excellent site for an observatory has been found, there are two questions now confronting the AAAP membership. Will the Club membership resolve to carry the observatory project with its attendant obligations to a conclusion? Secondly will the AAAP membership provide the support for the project in terms of money, muscle, and time to bring it to fruition?

Any truly desireable goal requires hard work. Certainly all club members can contribute either money, muscle or time to building the observatory. The demands on the club will be great but the rewards, can be great also. Important descisions have to be made on January 13 and I will look forward to seeing you on that date.

Sincerely,



Richard D. Peery  
Director

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#### NUMBERS OF INTEREST

John Church: Use of 6" Refractor 799-0723  
Bill Phillips: Observatory contributions 921-2732  
Dick Peery: Director; Star Parties 397-3676  
Mike Clark: Washington Crossing Star Parties 585-1463  
New Jersey State Museum Planetarium 292-6333

#### New Member Roster

Joseph M. DePuglio  
Lauren M. Farese  
Milton Pelovitz

John Dickson  
Edward Flynn Jr.  
John W. Sabol, Sr.

PROSPECTIVE NEW MEMBERS  
INVITED



G7 Franklin Corner Gardens  
Lawrenceville, NJ 08648

Members of the A. A. A. P.:

Each of us will be asked to give our club a lot of labor and cash -- far more than before -- if we decide to approve the Observatory Committee's proposal. Before we are committed to such unprecedented effort, we should all think carefully about the heavy investment of our time and money and the personal benefits an observatory would give us.

For the first time, a project is proposed which cannot be done by the officers alone, or with one or two members pitching in once in a while. To build and use this observatory will demand a lot of labor from average, garden-variety members -- even those who seldom attend meetings.

Personal labor will be needed to dig foundations, haul blocks, pour cement, and so on. That's never been part of being an A. A. A. P. member before. It used to be simply paying the dues, which we all do. That won't be enough any more. Now there will be weekends, evenings, holidays diverted from familiar pursuits to getting cold, dirty and sore. You know yourself well enough to say if you're really going to go out to Washington Crossing and personally do the digging and hauling for a club observatory. Will you?

The club hasn't raised much over half the present estimate for building supplies, let alone unforeseen expenses, monthly electric and sewer bills, and inflation. The remainder will have to be donated and raised by you. Are you willing to take on that obligation? Can you afford to?

Even if we give enough of our money and, more importantly, our time -- ourselves -- how many of us really observe enough to make an observatory worth while? That pipe-dream project you've been pondering: do you really need a club observatory to accomplish it? if we have one, will you then immediately start working on it? seriously?

The club will be committed to public star parties at the Park. Are you actually going to volunteer to go there nights you wouldn't otherwise, and, instead of observing yourself, let all comers look, and explain to them what you'd rather be seeing in person?

It's not as if the 6" is in storage. Members frequently go to John Church's to use it. Why should we put so much effort into moving it from Princeton Junction to Washington Crossing? Will it be so much more available to you, more useful for your observations, easier to use? And even if it will be a bit handier, is it worth the tremendous bother? For about the same amount of money (and practically NO labor) we could buy, say, two Questars, ten Star Traps and an Essential Optics 16" newtonian. Any club member who wanted one could check it out and use it wherever most convenient, not only at the Park. Wouldn't that promote your observing even more than an observatory?

I'm skeptical about the average member's desire to build this proposed observatory. If YOU think the investment is desirable, let's go ahead -- understanding full well the personal investment as well as the abstract "club" one. Think about it.

*Norman Sperling* Norman Sperling