

archived as [www.stealthskater.com/Documents/AIL\\_01.doc](http://www.stealthskater.com/Documents/AIL_01.doc)

(also ...[AIL\\_01.pdf](#)) => [doc](#) [pdf](#) [URL-doc](#) [URL-pdf](#)

more of the P-X & Montauk is on the [PX page](#) at [doc](#) [pdf](#) [URL](#)

*note: because important websites are frequently "here today but gone tomorrow", the following was archived from <http://pxarchive.tripod.com/companies/ail.html> on June 24, 2003. This is **NOT** an attempt to divert readers from the aforementioned website. Indeed, the reader should only read this back-up copy if it cannot be found at the original author's site.*

**note: if any <links> below have expired, you can try using the Internet Archives "Wayback Machine" at <http://www.archive.org>**

## Airborne Instruments Laboratory (AIL)

Airborne Instruments Laboratory (AIL) is not recognized by most people who are looking for information about the Philadelphia Experiment. Very few are aware about the role which AIL played during the preparation and conduct of the Montauk Project and maybe already during the time of the PX.

The forerunner of AIL was a group of scientists working under the same name for the NDRC at Harvard. They developed radar systems and radar countermeasures. Soon after the end of WW II, the NDRC lab was closed and most of the scientists became the backbone of what then was a civil company. In September 1945, Airborne Instruments Laboratory was established in Mineola, New York by a group of scientists who were employed up to then at the Airborne Instruments Laboratory of the U.S. Government. Some of the better-known scientists who worked for AIL were Preston Nichols and Bob Dratch, who both claimed to have seen strange documents or have experienced odd events during their time at AIL. In 2000, AIL merged with EDO Systems and ceased operations as a independent company. From their own publications, one can see that AIL looks back on more than 50 years of experience in developing radar systems and antenna sets. This makes AIL a perfect candidate for the preparation and conduct of both the PX and the Montauk Project.

One of the names that one always comes across is **Preston Nichols**, who stated in his book "*The Montauk Project - Experiments in Time*" that he once has worked for AIL. For reasons of protection, he referred to 'AIL' as "BJM" which easily can be decrypted by shifting the letters back to their old places: 'B' becomes 'A', 'J' becomes 'I', and 'M' becomes 'L' again. Marshall Barnes proved already that Nichols indeed once worked for AIL: In Barnes book "*The Rinehart Files*", he described how he made a phonecall to the Office of Human Resources at AIL and that he got it confirmed.

Another person who is worth to have a look at is **Robert "Bob" Dratch**, who on his website describes the same company AI with the same crypted letter code that Nichols used: "BJM". This time I was the one who could get a official confirmation from EDO Systems that Bob Dratch once had worked for AIL for a 2-month period in 1970.

While scanning the records the IEEE Oral History, I found another source telling more about AIL's history. From an interview of Charles Fowler, another former MIT Radiation Lab scientist:

Goldstein: How did you become involved with this company? Was it through the (MIT) Rad Lab?

C. Fowler: Sort of. Airborne Instruments Lab had been an OSRD laboratory under Columbia Radiation Lab. It worked on magnetic anomaly detectors and some on electronic warfare. The associate director had the idea of forming a group that would become the technical voice of the airline industry. He talked to American Airlines and others, and they were interested. So he set about recruiting some people to stay on from the original AIL, getting some radar people from Rad Lab and the services. And getting some countermeasures people because he wanted to continue with the Navy countermeasures they had asked him to do.

It was incorporated in late '45 as a private company. When they approached Rad Lab, one of the groups they went after were those of us that were in air traffic control and landing. So I and my immediate boss George Comstock went there along with about seven others from the Rad Lab. I really don't know how they picked the others.

Remember, this was the first AIL -- the forerunner of the Nichols/Dratch company. But this interview proves some interesting facts. AIL was working for the OSRD (that means directly for the US government) -- they were working on electronic warfare (which self-explaining included radar research) and on Navy countermeasures. All those circumstances make the first AIL a perfect candidate for the development of the Philadelphia Experiment, and the second AIL to a good candidate for follow-on experiments including the Montauk projects as a lot of the scientific personal was the same.

1. <http://www.ail.com/>

AIL Homepage - AIL completes merger with EDO Corp on May 1, 2000

2. <http://library.northernlight.com/PB20000531030003305.html?cb=0&sc=0#doc>

Department of Defense News Release - AIL Systems won a \$6,133,457 contract from Warner Robins Air Logistics Center for components to the AN/ALQ-161A Electronic countermeasures Systems on the B-1B aircraft - 05/16/2000

3. [http://www.hoovers.com/cgi-](http://www.hoovers.com/cgi-bin/offsite?site=HBN&url=http://www.northernlight.com/nlquery.fcgi^qr=AIL+Systems&si=SOURCE%5E%3D1&eek=SOURCE%5E%3D314&us=025&cc=&sb.x=47&sb.y=21)

[bin/offsite?site=HBN&url=http://www.northernlight.com/nlquery.fcgi^qr=AIL+Systems&si=SOURCE%5E%3D1&eek=SOURCE%5E%3D314&us=025&cc=&sb.x=47&sb.y=21](http://www.northernlight.com/nlquery.fcgi^qr=AIL+Systems&si=SOURCE%5E%3D1&eek=SOURCE%5E%3D314&us=025&cc=&sb.x=47&sb.y=21)

Manufacturer of electronic warfare systems, including ECCM systems, ECM systems, electro-optic laser warning receivers, electronic warfare detection equipment and airborne and ground based MTI radar detection systems. Formed in 1945.

4. <http://www.ailtso.com/today.htm> -and-

<http://www.hoovershbn.hoovers.com/bin/story?StoryId=CoODT0bKbytaWoty&FQ=%22AIL%20Systems%22&HdlFmt=simple>

"EDO won this award based on its 50 years of EW design expertise acquired through the Company's merger with the former AIL Systems, Inc." February 12, 2001

5. <http://www.kassay.com/mproject.htm>

PROJECTS completed in 1997 contracted through AIL Systems, Inc.

6. [http://www.aerotechnews.com/starc/2000/122999/AIL\\_EDO.html](http://www.aerotechnews.com/starc/2000/122999/AIL_EDO.html)

AIL, EDO announce merger plans - article

7. <http://www.nycedo.com/edocorp/index.html>  
EDO Corp main page - merged with AIL on 1. May 2000. Chairman of the Board of Directors: Neil Armstrong (the first man on the moon)
8. <http://www.nycedo.com/edocorp/pageba2.htm>  
"AIL's 50+-year antenna experience started in the 1940's and led to pioneering printed circuit antennas in the 1950's and spaceborne antennas in the 1960's. With the acquisition of Jasik Laboratories in the 1970's, AIL's antenna products moved into a variety of demanding spaceborne and direction finding arrays (SR-71 "Blackbird" ELINT) while the 1980's saw production of EW, ATC, and radar antennas for military applications." 2001
9. <http://www.hoovershbn.hoovers.com/bin/story?StoryId=CoODT0bKbytaWoty&FQ=%22AIL%20Systems%22&Title=Headlines%20for%3A%20%22AIL%20Systems%22%0A>  
"EDO won this award based on its 50 years of EW design expertise acquired through the company's merger with the former AIL Systems Inc." (Note:"EW" stands for Electronic Warfare)
10. [http://www.lift.org/ail\\_systems\\_inc.htm](http://www.lift.org/ail_systems_inc.htm)  
"In September 1945, Airborne Instruments Laboratory (now AIL Systems Inc.) was established in Mineola, New York by a group of scientists."
11. <http://www.nbcindustrygroup.com/ail.htm>  
"AIL Systems, Inc. is a developer and producer of advanced sensor systems for the Department of Defense and the commercial marketplace"
12. <http://www.opensecrets.org/pacs/index/00292953.htm>  
AIL's Political Action Committee
13. <http://www.academy.jccbi.gov/catalog/html/88228.htm>  
"Course Description: ... Twin-T Antenna System,..."
14. <http://209.185.211.30/briefbank/pleadings/Hiott/HIOTT2%20-%20AIL%20Reply%20to%20Separate%20Statement%20of%20Facts%20of%20BMS.pdf>  
"AIL, a wholly-owned subsidiary of Eaton ..." From a legal file. Eaton and AIL are the same company.
15. [http://www.ieee.org/organizations/history\\_center/oral\\_histories/transcripts/suits42.html](http://www.ieee.org/organizations/history_center/oral_histories/transcripts/suits42.html)

Suits: I was at the OSRD office frequently, and frequently at the offices of the armed services people concerned with countermeasures including the Naval Research Laboratory. So I was on the run most of the time.

McMahon: Besides the Naval Research Laboratory, what's the constellation of institutions that you remember 'Division 15' working with?

Suits: Very early in the work, the Airborne Instruments Laboratory became part of the act. And the Division had contract work underway at the Bell Telephone Laboratories.

McMahon: Do you remember who was at the AIL, by the way?

Suits: K. C. Black was in charge.

... McMahon: Where is the Airborne Instruments Laboratory?

Suits: It's on Long Island.

McMahon: Was that an independent laboratory?

Suits: I can't tell you the origins of that laboratory prior to our acquaintance with it. But it did work for one of the other divisions, completed the work, worked itself out of a job, and we took it over in the middle of the War.

McMahon: Division 15?

Suits: Yes.

McMahon: Did they work exclusively for 'Division 15' then?

Suits: Yes.

McMahon: And then they have a life after the War, do they not? Or do you know that? The AIL ... doesn't it go on?

Suits: Yes. After the War, Hale went somewhere else. I had no contact with him since the War; nobody's seen him. John Dyer became director of the laboratory, and they took on an industrial association. I can't tell you what the company is. Other names that are certainly important are Captain W.G.H. Finch, U.S. Navy -- he was our point of contact with the Navy during the War, on Congress. He had some associates that worked with him. One was David T. Ferrier, Lieutenant -- he was mostly assigned as liaison to the Radio Research Laboratory for the Navy.

McMahon: That must have been a very important liaison because the Navy was obviously quite concerned with this. Most of the work at the RRL -- as I understand it -- was at the high-frequency range and not the ultra-high frequency range. That is, microwave work was not at the heart of what they were doing.

16. [http://www.ieee.org/organizations/history\\_center/oral\\_histories/transcripts/rambo47.html](http://www.ieee.org/organizations/history_center/oral_histories/transcripts/rambo47.html)

McMahon: So as it began to wind down, did you come back to Stanford right after the War?

Rambo: No. I went to Airborne Instruments Lab, as did a number of the people from RRL.

McMahon: Where were they located?

Rambo: In Long Island, the plant was in Minneola. AIL had been an OSRE laboratory as was RRL and the Rad Lab at MIT. They initially were involved in anti-submarine warfare -- that kind of thing -- and then they got into some proximity fuse work later in the War. They were much smaller than we. And of course, we were much smaller than MIT. When the War was over, there was a cadre of people at AIL that stayed on. A group came down from Rad Lab and a group from RRL and they formed Airborne Instruments Lab. AIL had been under the auspices of Columbia University. RRL was Harvard, of course, and Rad Lab was MIT.

McMahon: So AIL has a life of its own after the War, you were with them about 5 years ...

Rambo: 5 years. It did well in those 5 years and boomed from then on -- about the time I left. (I don't think that had a singular bearing on it...) AIL did very well indeed. Cutler-Hammer bought AIL in time. And the people at AIL in turn began to dominate Cutler Hammer in terms of presidencies, and so on. Then the Heaton Corporation bought the whole thing. So there is still an AIL today that is very prominent in this whole electronics business, still on Long Island.

17.

18.

19.

20.

21.

22.

23. <http://www.libraries.psu.edu/crsweb/speccol/FindingAids/izenour4.html>

"During World War II, Izenour was recruited by the Airborne Instruments Laboratory (AIL) -- a division of the Office of Scientific Research and Development -- to work as a member of the Aircraft Compensation Group in developing the magnetic airborne detector for subsurface detection and sinking of submarines from aircraft. Here he became a self-taught mechanical designer and electronics engineer. Izenour left AIL in July 1946 and returned to New Haven in September to resume his own work."

24. [http://www.man.ac.uk/Science\\_Engineering/CHSTM/jba/CS8.HTM](http://www.man.ac.uk/Science_Engineering/CHSTM/jba/CS8.HTM)

Correspondence Series 8: R. Hanbury Brown: FILENAME: Airborne Instruments Laboratory

25. [http://www.ieee.com/organizations/history\\_center/oral\\_histories/transcripts/fowler.html](http://www.ieee.com/organizations/history_center/oral_histories/transcripts/fowler.html)

C. Fowler: "To Long Island. I went with a company Airborne Instruments Lab." - Interview

26. [http://www.ieee.com/organizations/history\\_center/oral\\_histories/transcripts/villard43.html](http://www.ieee.com/organizations/history_center/oral_histories/transcripts/villard43.html)

Villard: "...and Matthew Labenbaum, who was recently retired from the Airborne Instruments Lab."  
- Interview

27. [http://www.ieee.org/organizations/history\\_center/oral\\_histories/abstracts/ramboab.html](http://www.ieee.org/organizations/history_center/oral_histories/abstracts/ramboab.html)

William Rambo graduated with an engineering degree from Stanford University in 1941. From 1942 through 1946, he was with Harvard's Radio Research Laboratory. And from 1946 through 1950, he was with the Airborne Instruments Laboratory on Long Island.

28. <http://www.pipeline.com/~lenornst/index.html>

Leonard Ornstein Biography: ... Airborne Instruments Lab., 1965-1967...

**if on the Internet, Press <BACK> on your browser to return to the previous page (or go to [www.stealthskater.com](http://www.stealthskater.com))**

**else if accessing these files from the CD in a MS-Word session, simply <CLOSE> this file's window-session; the previous window-session should still remain 'active'**